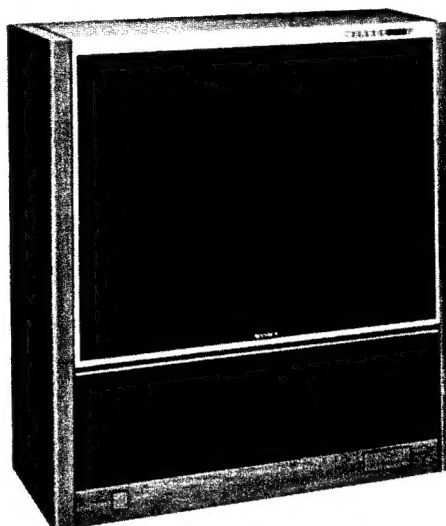


KPR-4620

RM-730

SERVICE MANUAL



US Model
Chassis No. SCC-758A-A

May, 1986

SPECIFICATIONS

Structure	Screen and projector, rear projection type	Antenna	75-ohm external antenna terminal for VHF/UHF/CATV
Projection system	3-picture tubes, 3 lenses, horizontal in-line system	Inputs	VIDEO 1,3 IN (phono jacks) Video: 1Vp-p, 75 ohms unbalanced, sync negative Audio: 408mVrms (100% modulation, 47 kilohms)
Picture tube	5.5 inch high-brightness monochrome tubes, with coolant sealed, dust inhibition anti-static faces		VIDEO 2 IN AV (AV jack) Video: 1V p-p, 75 ohms unbalanced, sync negative Audio: 408mVrms (100% modulation, 47 kilohms)
Projection lenses	High-performance, large-diameter hybrid lens F 1.0		RGB multi input (See the diagram) RGB AUDIO IN (stereo mini jack) CONTROL IN (mini jack) 5Vp-p
Screen material	Acrylic plastic, Fresnel lenticular type		75-ohm external antenna terminal for VHF/UHF/CATV AUX 75-ohm auxiliary antenna terminal
Projected picture size (measured diagonally)	46 inches		MONITOR OUT (phono jacks) Video: 1Vp-p, 75 ohms unbalanced, sync negative Audio: 408mVrms (100% modulation, 1 kilohm)
Viewing distance	2.5m (approx. 8 1/5 ft) minimum to 16m (approx. 52 1/2 ft) maximum	Outputs	CONTROL OUT (mini jack) 5Vp-p TO CONVERTER terminal
Optimum seating arrangement	Within approx. 80 degrees from center	Speaker	Three-way speaker system Woofer: 12x19cm (4 3/4 x 7 1/2 inches) 2 units Midrange: 5cm (2 inches) dia. 2 units Tweeter: 2cm (13/16 inch) dia. 2 units
Screen brightness	Typical 220 foot-Lamberts		
Television system	American TV standards		
Channel coverage	VHF: 2-13 UHF: 14-69 CATV: 1-125		

— continued on next page —



COLOR REAR VIDEO PROJECTOR

SONY®

MON

Power requirements

120V AC, 60Hz

Power consumption

186W (max.), 135W (average)

4W (in standby condition)

Dimensions

1106 × 1213 × 640 mm (w/h/d)

(43½ × 47¾ × 25¼ inches)

Weight

73 kg (161 lb. 3 oz.)

Accessories supplied

Remote Commander RM-730 (1)

with 2 size AA batteries

Antenna connector (1)

Optional accessories

Connecting cables (See page 14)

Cables for RGB connector

SMF-502 (8-pin ↔ 25-pin)

SMF-505 (8-pin ↔ 18-pin)

SMF-507 (8-pin ↔ 9-pin)

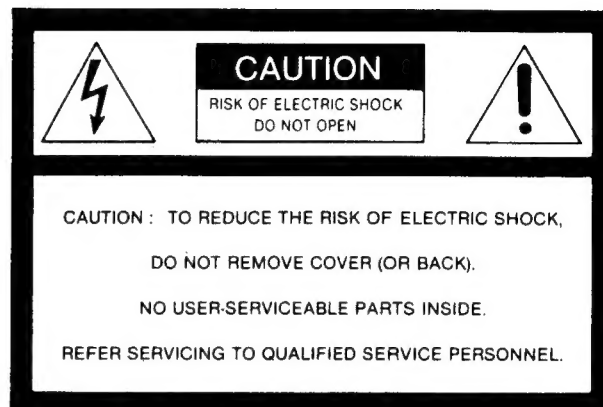
RGB multi input (8-pin plug)

Pin No.	Signal assignment
1	Intensity input
2	Red input
3	Green input
4	Blue input
5	Ground
6	Ground
7	H. sync or composite sync
8	V. sync

Design and specifications are subject to change without notice.

WARNING

To prevent fire or shock hazard, do not expose the set to rain or moisture.



This symbol is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.




This symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

CAUTION

TO PREVENT ELECTRIC SHOCK, DO NOT USE THIS POLARIZED AC PLUG WITH AN EXTENSION CORD, RECEPTACLE OR OTHER OUTLET UNLESS THE BLADES CAN BE FULLY INSERTED TO PREVENT BLADE EXPOSURE.

SAFETY-RELATED COMPONENT WARNING !!

COMPONENTS IDENTIFIED BY SHADING AND MARK  ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY. CIRCUIT ADJUSTMENTS THAT ARE CRITICAL TO SAFE OPERATION ARE IDENTIFIED IN THIS MANUAL. FOLLOW THESE PROCEDURES WHENEVER CRITICAL COMPONENTS ARE REPLACED OR IMPROPER OPERATION IS SUSPECTED.

SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety checks before releasing the set to the customer:

1. Check the area of your repair for unsoldered or poorly-soldered connections. Check the entire board surface for solder splashes and bridges.
2. Check the interboard wiring to ensure that no wires are "pinched" or contact high-wattage resistors.
3. Check that all control knobs, shields, covers, ground straps, and mounting hardware have been replaced. Be absolutely certain that you have replaced all the insulators.
4. Look for unauthorized replacement parts, particularly transistors, that were installed during a previous repair. Point them out to the customer and recommend their replacement.
5. Look for parts which, though functioning, show obvious signs of deterioration. Point them out to the customer and recommend their replacement.
6. Check the line cord for cracks and abrasion. Recommend the replacement of any such line cord to the customer.
7. Check the condition of the monopole antenna (if any).
Make sure the end is not broken off, and has the plastic cap on it. Point out the danger of impalement on a broken antenna to the customer, and recommend the antenna's replacement.
8. Check the B+ and HV to see they are at the values specified. Make sure your instruments are accurate; be suspicious of your HV meter if sets always have low HV.
9. Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

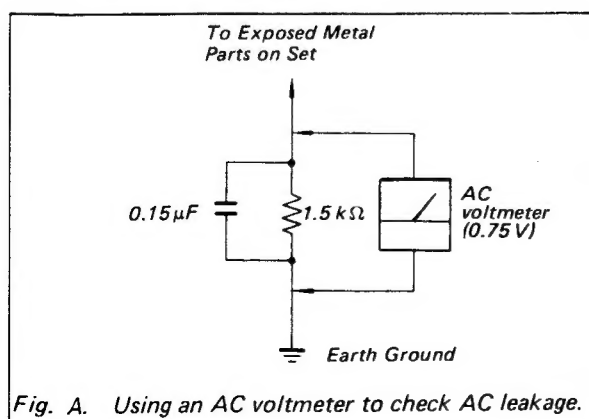


Fig. A. Using an AC voltmeter to check AC leakage.

LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microamperes). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2 V AC range are suitable. (See Fig. A)

HOW TO FIND A GOOD EARTH GROUND

A cold-water pipe is guaranteed earth ground; the cover-plate retaining screw on most AC outlet boxes is also at earth ground. If the retaining screw is to be used as your earth-ground, verify that it is at ground by measuring the resistance between it and a cold-water pipe with an ohmmeter. The reading should be zero ohms. If a cold-water pipe is not accessible, connect a 60-100 watts trouble light (not a neon lamp) between the hot side of the receptacle and the retaining screw. Try both slots, if necessary, to locate the hot side of the line, the lamp should light at normal brilliance if the screw is at ground potential. (See Fig. B)

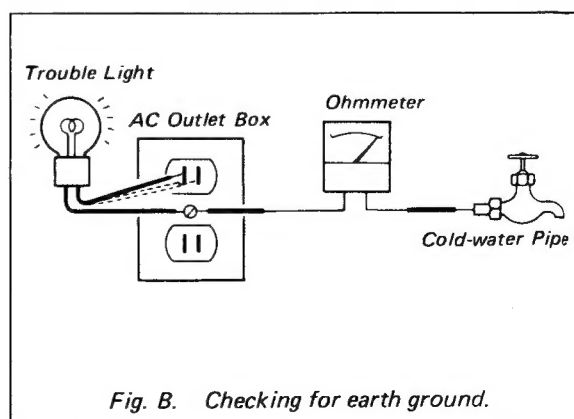


Fig. B. Checking for earth ground.

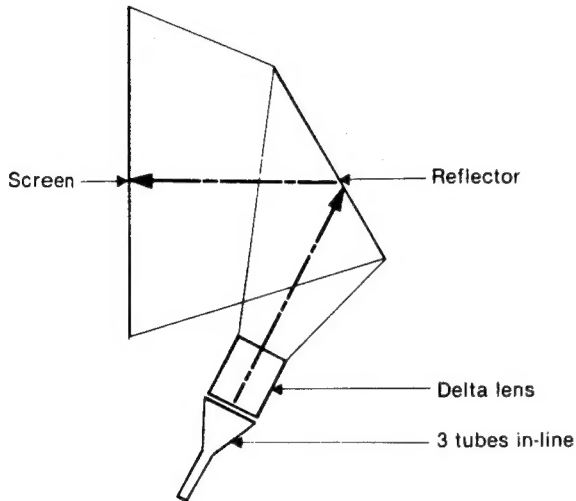
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SECTION 1 GENERAL

1-1. FEATURES

- Remote control color rear video projector with a multifunction Remote Commander projects TV pictures on a self-contained 46-inch screen (measured diagonally).
- A unique "folded optics" system with one reflector less than other systems provides "compact and slim" projector design.



- New "Optical coupling and cooling" system remarkably improves the picture contrast.
- Two-way built-in speakers provide powerful sound reproduction.

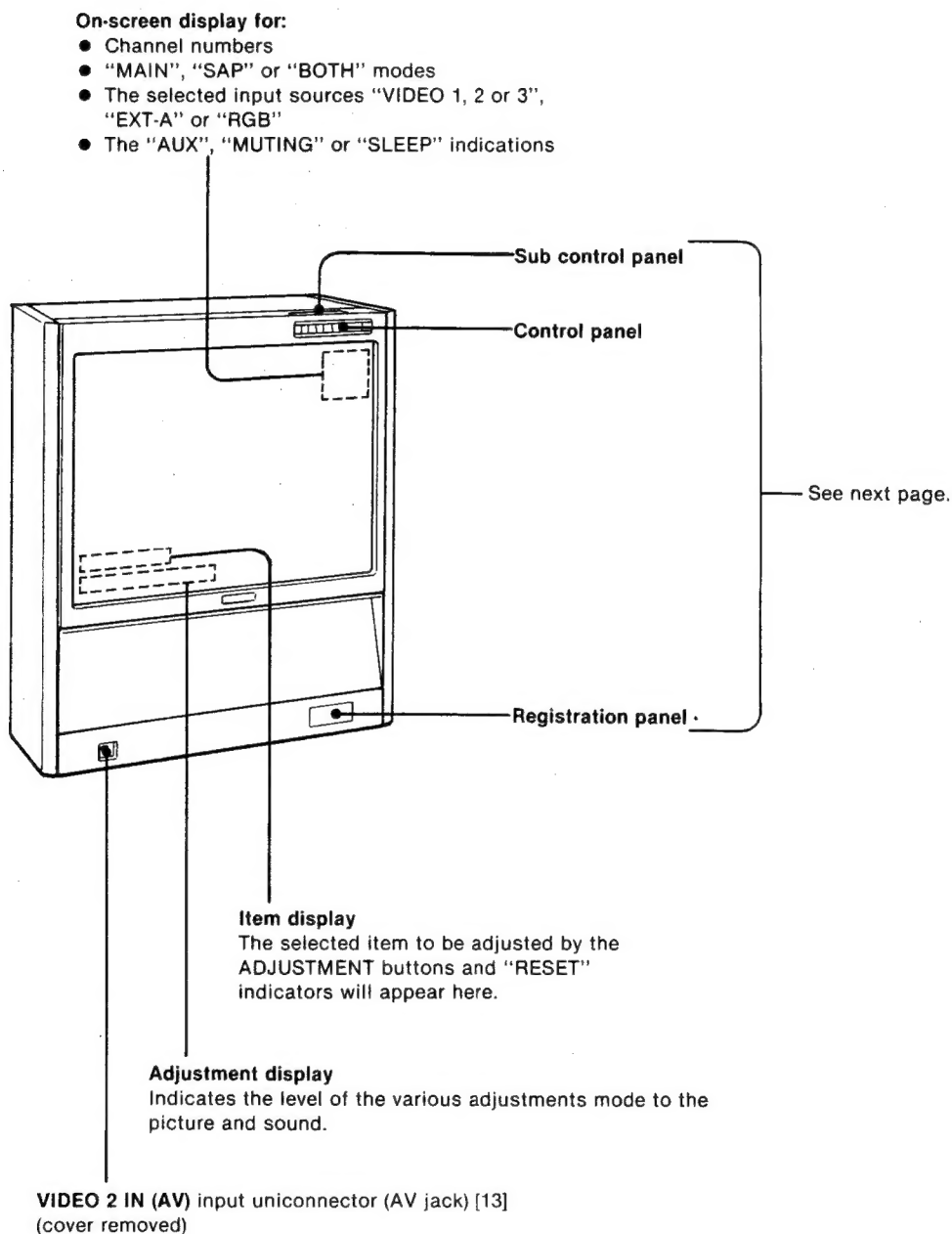
- Built-in stereo decoder decodes MTS (Multichannel TV sound) broadcasts into left and right stereo or SAP (Second Audio Program) channels.*
- Multi-band VHF/UHF/CATV tuner receives up to 125 cable channels for total of 181 possible off-air and cable channels.
- Two built-in video and L/R audio line inputs and a new AV unconnector allow direct hook-up to VCRs, video disc players, video games or other audio/video sources. The AV unconnector receives combined video and L/R audio signals for one easy connection.
- Built-in video and L/R audio line outputs provide the selected output from the TV tuner or any of the equipment connected to the audio-video line inputs or the AV unconnector.
- Built-in RGB input for higher resolution display of computer-generated text and color graphics.
- On-screen displays for easy reference to operating modes and adjustments.
- Dynamic Picture™ circuitry automatically adjusts the picture contrast to produce more detail in bright and dark areas of the scene.
- Dynamic Focus™ circuitry automatically focuses the scanning electron beam for enhanced sharpness over the entire picture, especially in corners.
- Colorpure Filter™ separately processes B/W picture information from color information to produce a dramatically sharper picture

*Depends on availability of off-air stereo broadcasts

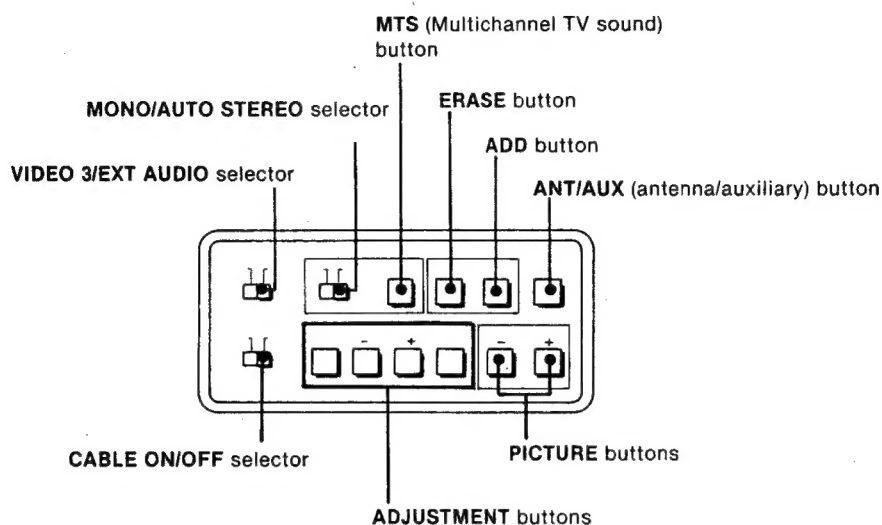
1-2. LOCATION OF CONTROLS

For details on the use of each control, refer to the pages indicated in brackets.

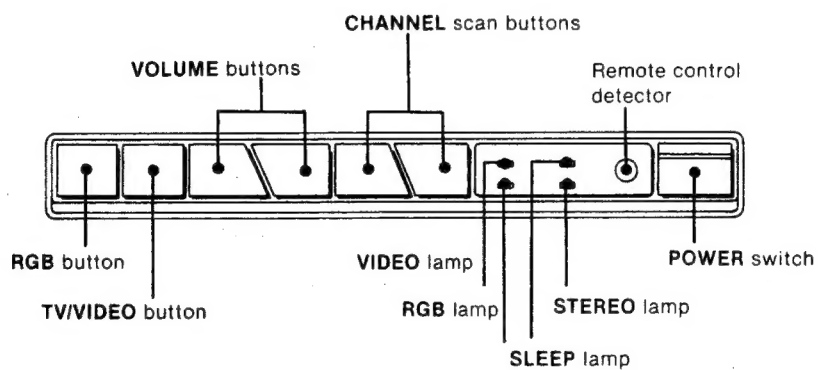
See page 12 for the location of jacks and controls on the back.



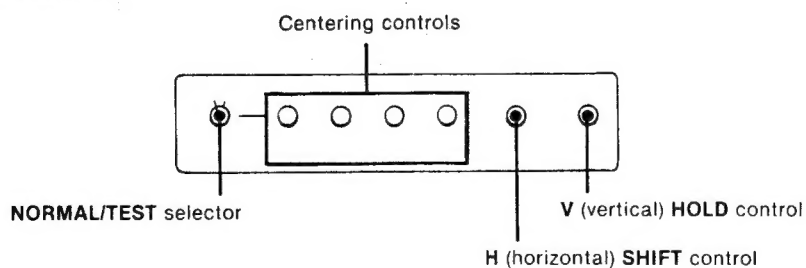
SUB CONTROL PANEL (top of the cabinet)



CONTROL PANEL



REGISTRATION PANEL



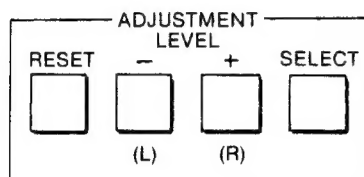
1-3. ADDITIONAL PICTURE AND SOUND ADJUSTMENT

(Hue: Color: Brightness: Sharpness: Treble: Bass: Balance)

Additional picture and sound adjustments besides the adjustments made by the PICTURE and VOL (volume) buttons can be made as follows although your unit comes with its picture and sound preset at the factory for optimum performance.

The adjustments made can be cleared and the factory preset levels will be restored at once when the **RESET** button is pressed. (A "RESET" indicator will appear for a few seconds.)

Controls are inside the sub control panel.



- 1 Press **SELECT** button consecutively until the on-screen display of the item you desire to adjust appears. The display will change as follows:

HUE→COLOR→BRIGHT→SHARP→TREBLE→BASS→BALANCE→back to HUE

The display will disappear after a few seconds but will appear again when the next step is taken.

- 2 Press **LEVEL -(L)/+(R)** button to adjust the selected item.

	Selected item	-(L) Left button	+(R) Right button
PICTURE ADJUSTMENT	HUE	Skin tones become purplish	Skin tones become greenish
	COLOR	For less color intensity	For more color intensity
	BRIGHT	For less brightness	For more brightness
	SHARP	For less sharpness	For more sharpness
SOUND ADJUSTMENT	TREBLE	To decrease treble response	To increase treble response
	BASS	To decrease bass response	To increase bass response
	BALANCE	To emphasize the left speaker's volume	To emphasize the right speaker's volume

On-screen color-bar displays

When any of the above adjustments are made, a colored segmented bar appears on the screen to indicate the appropriate setting level.

- The HUE setting is indicated by the ratio of the red (left) and green (right) segments.
- The COLOR level is indicated by the number of red segments.
- The BRIGHT, SHARP, TREBLE and BASS levels are indicated by the number of green segments.
- The stereo BALANCE is indicated by the ratio of the green (left) and red (right) segments.
- While the VOL or PICTURE button is pressed, the number of green segments show the sound or picture level.

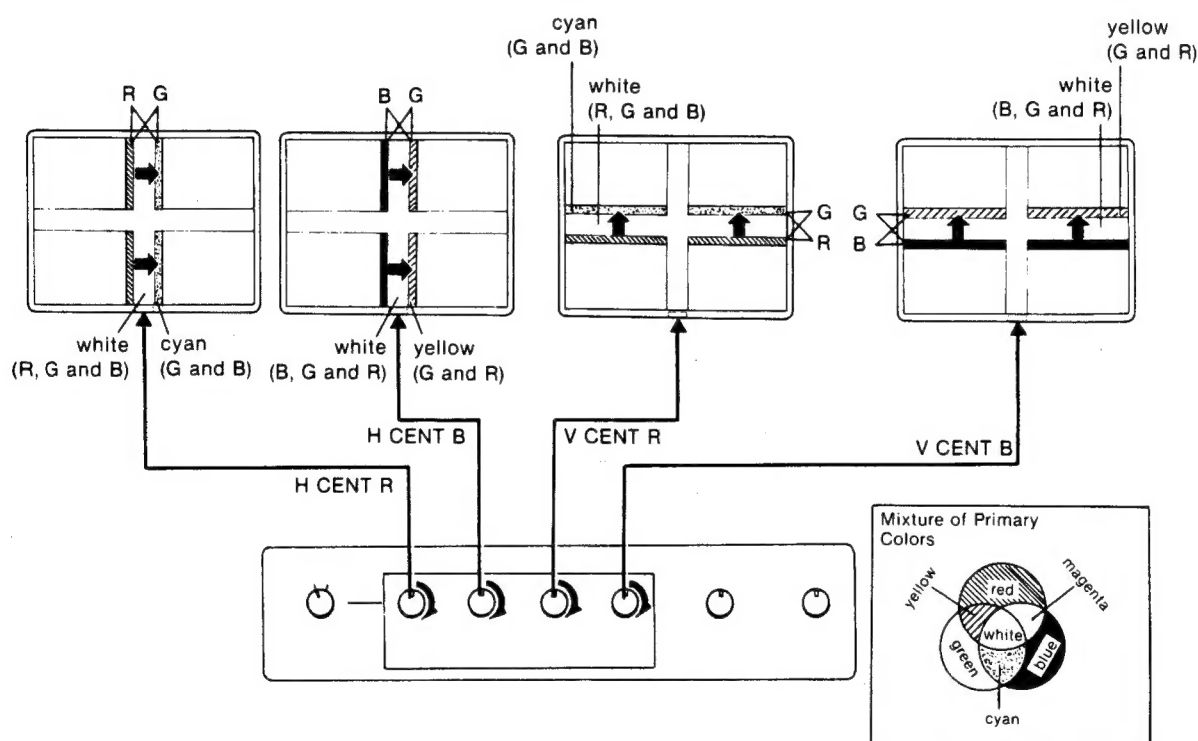
1-4. REGISTRATION ADJUSTMENT

When the red, green and blue lines are not be superimposed (the cross may not be seen as white), perform the registration adjustment yourself. Should the difficulty persist, contact your Sony dealer.

Follow steps 1 through 6.

- 1 Turn the set on with the POWER switch.
- 2 Open the registration panel and set the NORM/TEST selector to TEST. A built-in test pattern will be displayed on the screen.
- 3 Adjust the H CENT(B) and H CENT(R) controls to converge the blue and red vertical lines with the green line.
- 4 Adjust the V CENT(B) and V CENT(R) controls to converge the blue and red horizontal lines with the green line.

(In the illustration below:
R = Red, G = Green, B = Blue)



As you turn the controls clockwise, the lines move in the direction indicated in the illustrations. To move the lines in the opposite direction, turn the controls counterclockwise.

- 5 Repeat steps 3 and 4 until the cross appears white.
- 6 After the adjustment is completed, set the NORM/TEST selector to NORM and close the registration panel.

1-5. PRESETTING CHANNELS

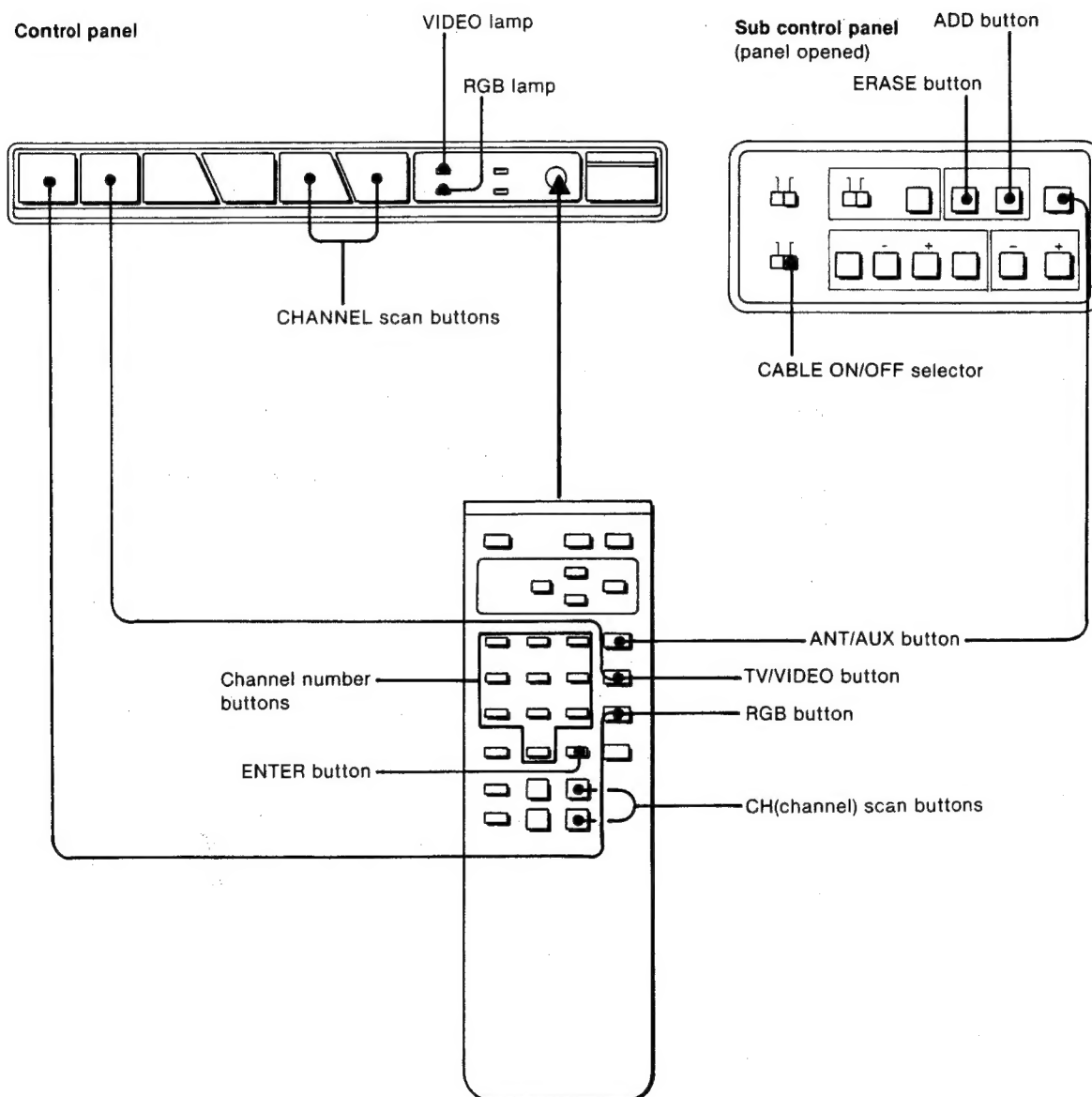
Receivable channels of your set are:

VHF: 2-13

UHF: 14-69

CATV: 1-125

By adding and erasing channels, you can preset your set so that only the desired channels appear in sequence when the CHANNEL +/- are pressed.



PREPARATION

- 1 Turn on the set.**
- 2 Make sure the following are properly set.**
On-screen "VIDEO 1, 2 or 3", "EXT-A" or "RGB" indicators and the RGB or VIDEO lamp should be off.
(Press TV/VIDEO button or RGB button as necessary until they go out.)
- 3 According to the channel to be added or erased, check the following and make the necessary changes.**
 - **CABLE ON/OFF selector:**
For VHF and UHF channels, set to OFF 冫.
For cable TV channels, set to ON ㄣ.
 - **On-screen "AUX" indication**
(Press ANT/AUX button as necessary.)
For VHF, UHF and regular cable TV channels, the indication should be off.
For pay cable TV channels, the indication should be displayed.

ADDING CHANNELS

- 1 Select the channel to be added by pressing the channel number buttons and then ENTER.**
 - 2 Press ADD.**
A "+" indication will appear on the left of the channel display on the screen, indicating that the channel will appear in the proper numerical sequence when you press CHANNEL +/-.
- Repeat steps **1** and **2** for other channels to be added.

ERASING CHANNELS

- 1 Select the channel to be erased.**
 - 2 Press ERASE.**
A "-" indication will appear on the left of the channel display on the screen, indicating that the channel has been erased. When CHANNEL +/- are pressed, you will see that the channel is skipped over in the numerical sequence.
- Repeat steps **1** and **2** for other channels to be erased.
To add erased channels again, follow the steps in "ADDING CHANNELS".

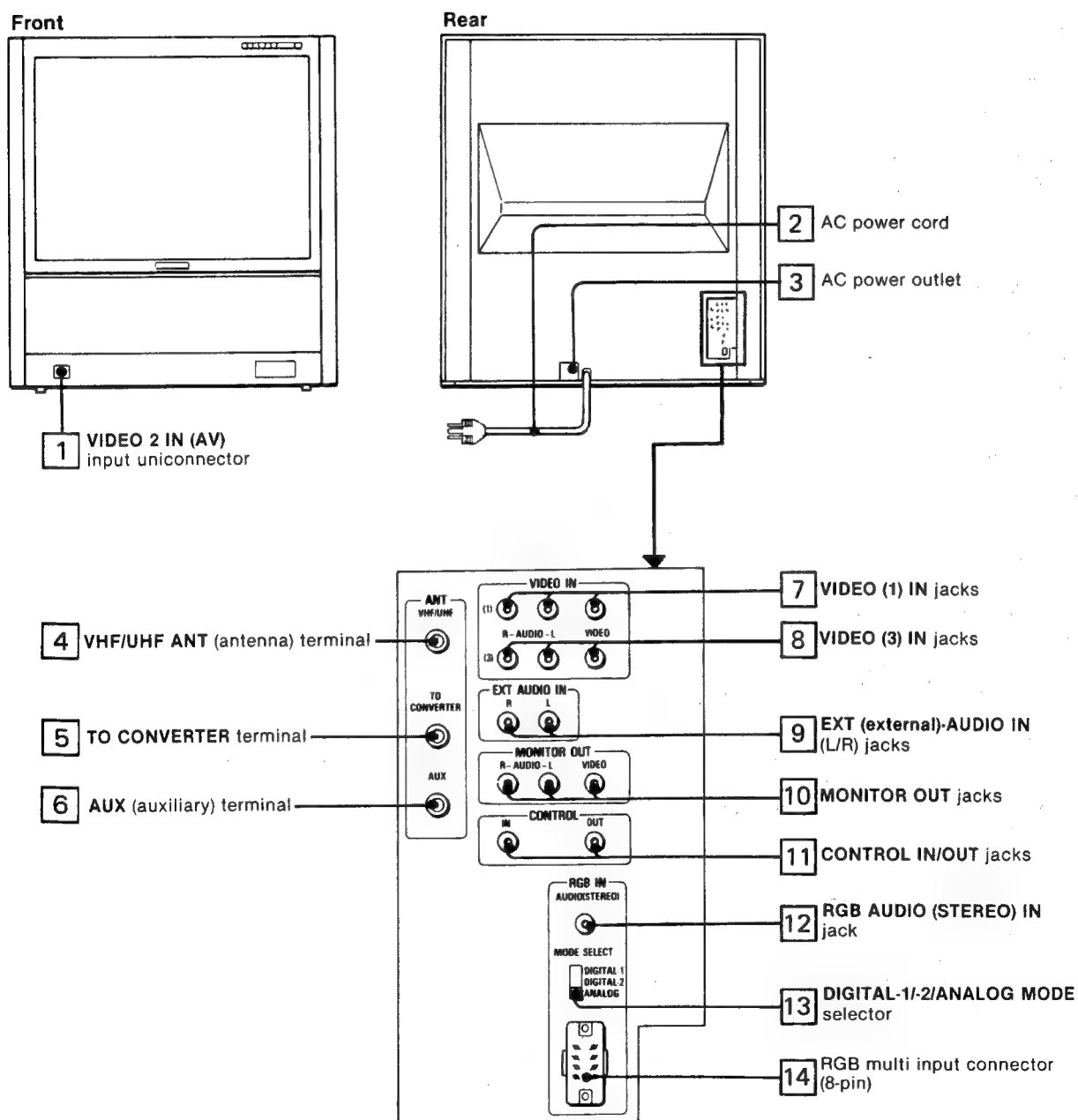
Note

You cannot erase a VHF or UHF channel from the memory and retain a cable TV channel which has the same number, or vice versa. If either a VHF/UHF channel or a cable with the same number is to be kept in the memory, do not erase the number.

1-6. APPLICATIONS WITH OTHER OPTIONAL EQUIPMENT

This unit is equipped with various input/output jacks and terminals for your desired equipment to be connected.

For details on the various optional connecting cables to be used, see "OPTIONAL AUDIO/VIDEO CONNECTING CABLES" on page 14.



1 VIDEO 2 IN (input) AV unconnector (AV jack)

Connect to the video and audio output jacks of a video cassette recorder or microcomputer. Video and audio signals are transmitted simultaneously.

2 AC power cord

3 AC power outlet

This outlet provides AC power of 100W max. to the connected microcomputer, etc.

CAUTION: Do not connect electrical home appliances such as electric irons, fans, or other high-wattage equipment to this outlet.

- | | |
|-----------------------------------|--|
| 4 VHF/UHF ANT terminal | } See "ANTENNA/CABLE CONNECTION" on page 21. |
| 5 TO CONVERTER terminal | |
| 6 AUX (auxiliary) terminal | |

7 VIDEO (1) IN jacks

8 VIDEO (3) IN jacks

Connect to the video and audio output jacks of a VCR*, video disc player, etc.

- | | |
|---------------------------------|--|
| ○ — VIDEO jack (phono, yellow) | → to video output jack |
| ○ — AUDIO L jack (phono, white) | → to audio L (left channel) output jack |
| ○ — AUDIO R jack (phono, red) | → to audio R (right channel) output jack |

*You will achieve better picture and sound quality than by connecting the VCR only to the antenna terminal.

9 EXT AUDIO IN (L/R) jacks

An external audio source can be connected to these jacks to be combined with the picture of the selected TV program. Connect to the audio/line output of the audio source.

To view FM simulcasted programs, see page 20.

10 MONITOR OUTPUT jacks (phono type)

Connect to the video and audio input jacks of a video cassette recorder or color monitor. Either the TV or VCR signal selected by the TV/VIDEO button is supplied.

To record only the sound, connect the audio input jacks of a tape recorder to the AUDIO L and R jacks with a connecting cable such as the optional RK-74A.

Note

The RGB signals are not supplied (and therefore will not be recorded on the connected VCR) from these jacks even when the RGB signals are displayed on the screen.

11 CONTROL IN/OUT jacks (mini type)

These jacks are for connecting a future audio or video product also equipped with similar CONTROL IN or OUT jacks for the expansion of your audio-video system.

12 RGB AUDIO (STEREO) IN jack (stereo mini type)

Connect to the RGB AUDIO output jack of microcomputers etc.

13 DIGITAL-1/-2/ANALOG MODE selector

For computers having intensity output, set to DIGITAL-1.

For computers without intensity output, set to DIGITAL-2.

For computers having analog output, set to ANALOG.

Note

Some microcomputers having intensity outputs may not function correctly even if this selector is set to DIGITAL-1. In this case, contact your nearest service facility.

14 RGB multi input connector (8-pin)

This connector allows direct RGB hook-up to a microcomputer having RGB output.



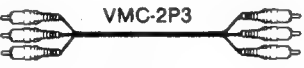


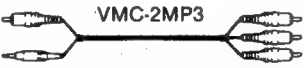


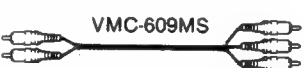
When connecting the microcomputer, use a connecting cable with an 8-pin plug that will match the RGB output of the equipment to the pin assignment of this connector designated on page 2.

1-7. CONNECTIONS



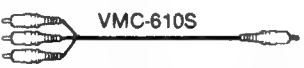


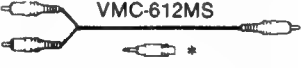
OPTIONAL AUDIO/VIDEO CONNECTING CABLES

The optional connecting cables to be used for connecting other equipment depend upon what type of audio and video jacks the equipment you desire to connect has. The following charts will help you choose which cable you should use.

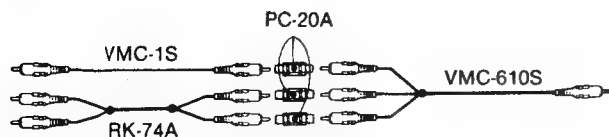
Cables to be connected to the VIDEO 1 and 3 IN jacks

The type of audio and video jacks of the equipment to be connected.	Connecting cable to be used
Video (phono-type)  Audio (L, R) (phono-type) 	VMC-2P3 
Video (phono-type)  Audio (mini-type) 	VMC-2MP3 
Video (phono-type)  Audio (phono-type) 	VMC-609MS 

Cables to be connected to the VIDEO 2 IN (AV type) uniconnector

The type of audio and video jacks of the equipment to be connected.	Connecting cable to be used
Video (phono-type)  Audio (L, R) (phono-type) 	VMC-610S 
Video (phono-type)  Audio (phono-type) 	VMC-612MS  *The PC-21 is supplied to the cable for a mini-type audio input.

If you use the connecting cable VMC-610S, extend the cable by using the optional connecting cables VMC-1S and RK-74A with the optional plug adaptors PC-20A (phono ↔ phono).



The following are few examples of the possible connections.

Notes on connection

- Before connecting, make sure that the power to each piece of equipment is turned off.
- The plugs should be fully inserted into the jacks. A loose connection may cause hum and noise.
- Match the color when connecting the plugs to the jacks.

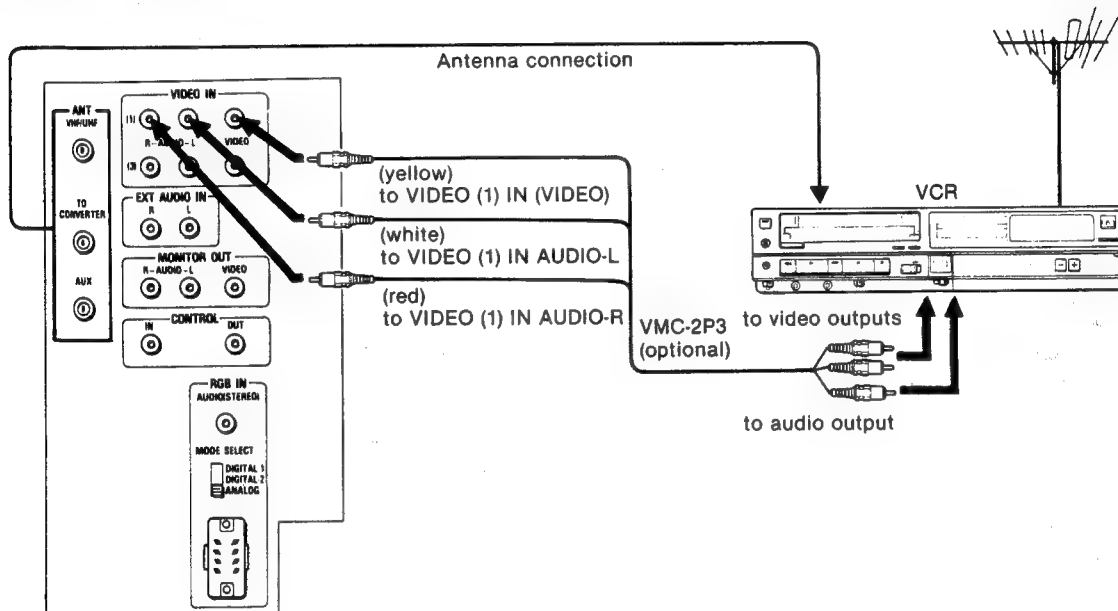
VCR CONNECTION

Keep the VCR away from the TV, if the display or sound is affected.

Caution

Television programs, films, video tapes and other materials may be copyrighted. Unauthorized recording of such material may be contrary to the provisions of the copyright laws.

Connecting VCRs that are capable of receiving TV broadcasts



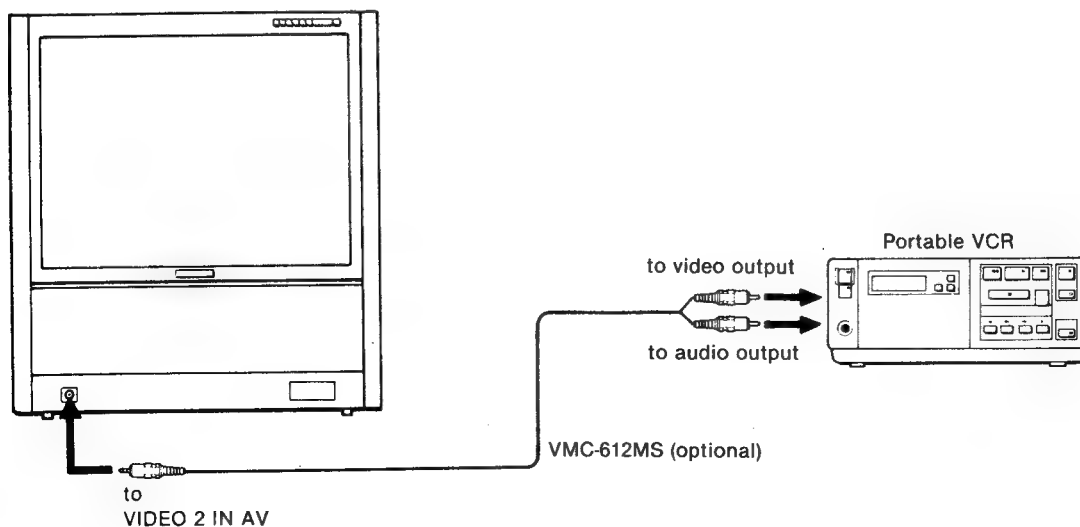
If you desire to connect another VCR, make the similar connection to the VIDEO 3 IN jacks and set VIDEO 3/EXT AUDIO selector to "VIDEO 3".

With this connection, you will be able to...

- View the playback of tapes
- Record TV programs
- Record a TV program while viewing another

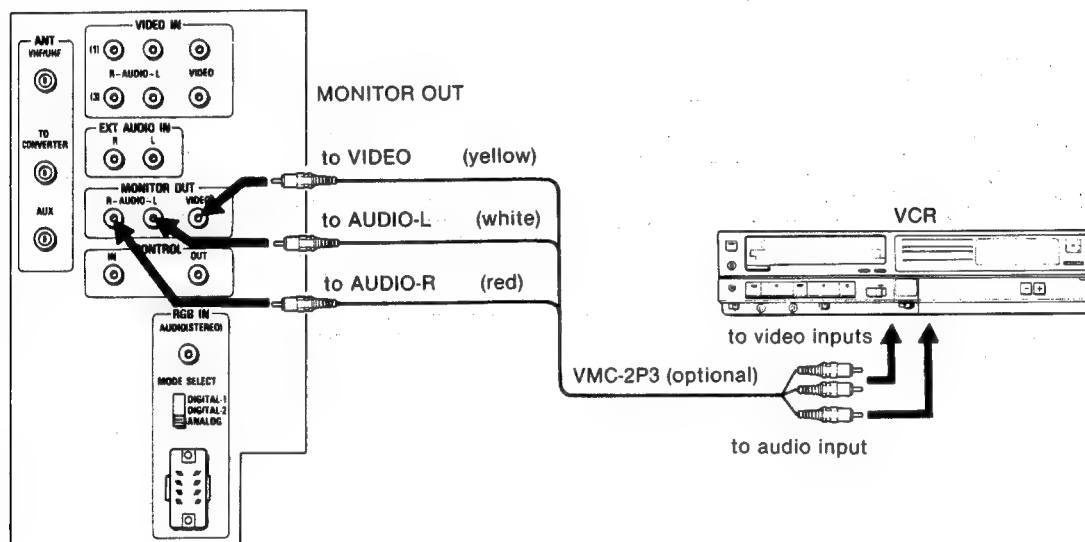
Connecting portable VCRs (that are not equipped with/connected to a TV tuner)

For playing back recorded tapes



Editing tapes by connecting a VCR to the MONITOR OUT jacks

If a VCR is connected to the MONITOR OUT jacks besides another VCR, video disc player, etc., connected to the VIDEO (1/3) jacks or VIDEO 2 IN AV unconnector, you will be able to edit your own tapes by recording the selected video source (including the TV programs) displayed on the screen. For selecting the desired video source, see page 19.



Note

The RGB input from the RGB multi input connector (8-pin) cannot be recorded.

MICROCOMPUTER CONNECTION

Using the appropriate connecting cable and with the DIGITAL -1/-2 ANALOG MODE selector of this unit set to the appropriate position, this unit can be used with microcomputers and other equipment having RGB terminals.

In addition, if the equipment to be connected has the RGB audio output jack, connect it to the RGB AUDIO (STEREO) IN jack of the projector.

For details on connection, refer to the instruction manuals of the equipment to be connected.

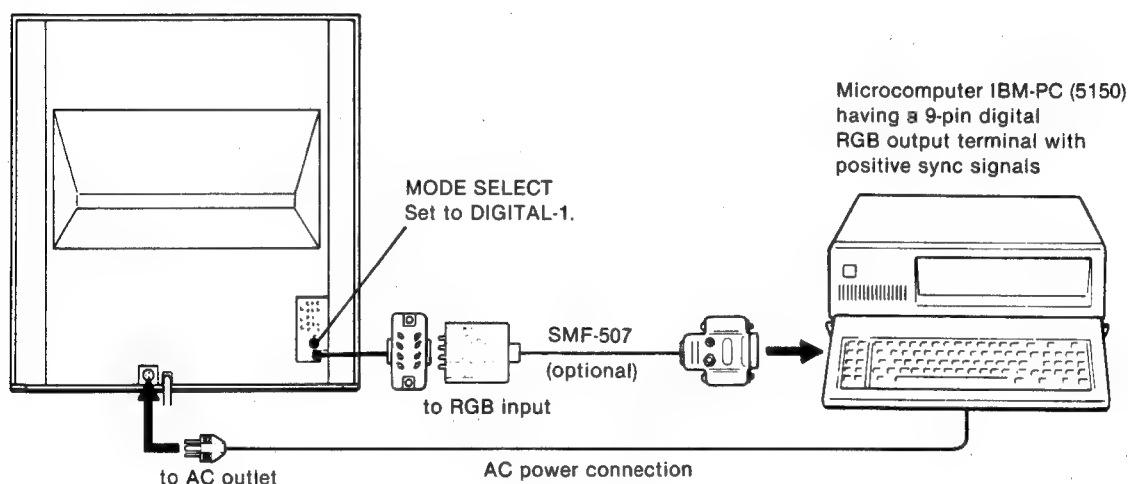
Note

According to the microcomputer to be connected, the connecting cable to be used depends upon the type of RGB output jack of the computer. The cable should arrange the output signals of RGB multi input connector (8-pin) of this set (See page 2).

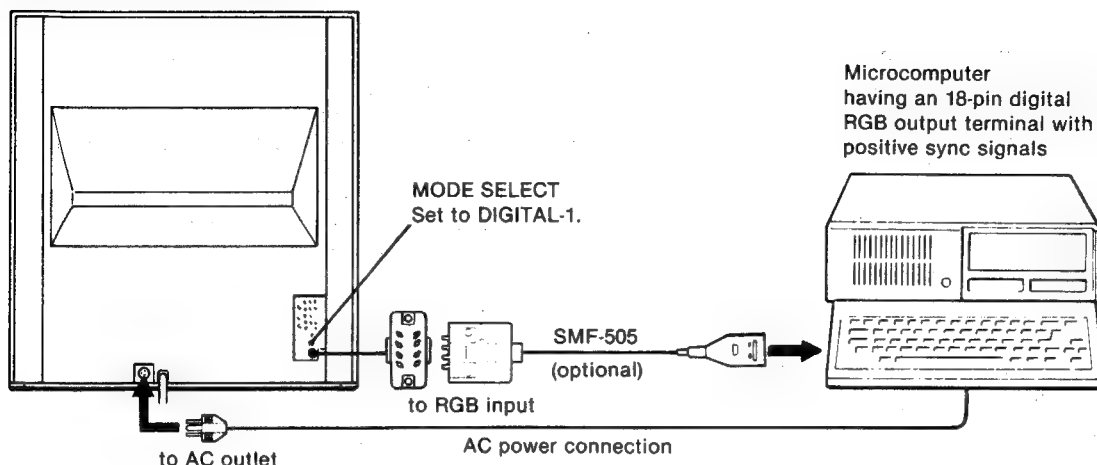
If you are not sure whether you can use your computer with this set or which connecting cable to use, consult your authorized Sony dealer.

Examples of connections with microcomputers with digital RGB output

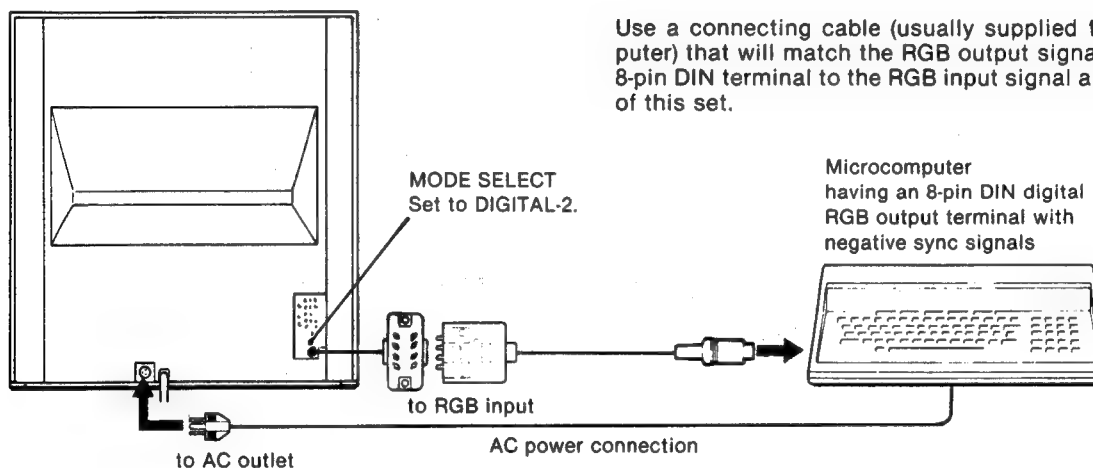
Microcomputers having intensity output



Microcomputers having intensity output



Microcomputers without intensity output



Use a connecting cable (usually supplied to the computer) that will match the RGB output signals from the 8-pin DIN terminal to the RGB input signal arrangement of this set.

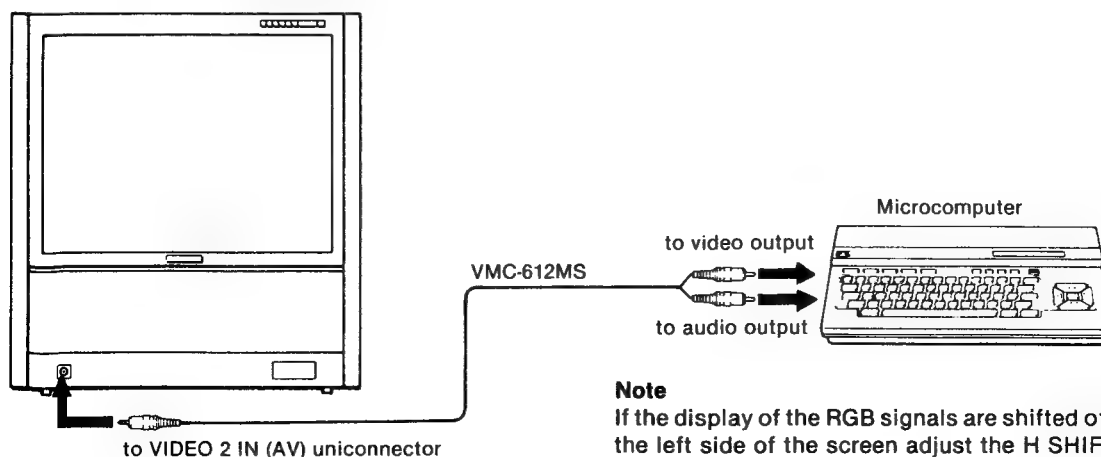
Notes

- The monitor cable should arrange the RGB output signals of the connected equipment so that they match the signal assignment of the RGB input connector of this set (See page 2). If you are not sure whether you can use your computer etc., with

this set or which monitor cable to use, consult your authorized Sony dealer.

- Some microcomputers having intensity outputs may not function correctly even if this selector is set to DIGITAL-1. In this case, contact your nearest Sony dealer.

Microcomputer with video and audio outputs



Note

If the display of the RGB signals are shifted off center to the left side of the screen adjust the H SHIFT control.

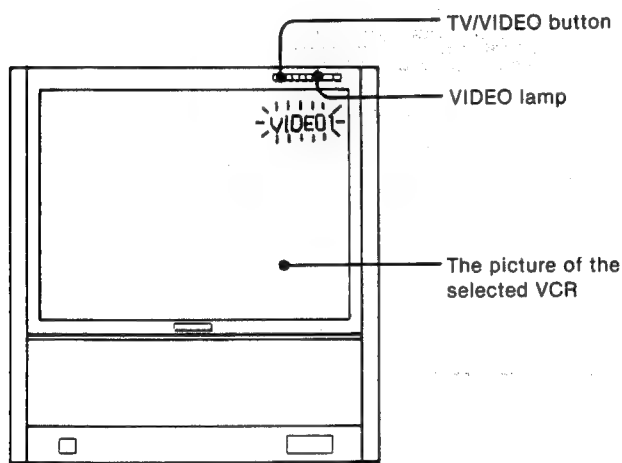
1-8. SELECTING THE VARIOUS AUDIO AND VIDEO SOURCES

VIEWING THE PICTURE OF THE EQUIPMENT CONNECTED TO THE VIDEO (1/3) IN or VIDEO 2 IN (AV) UNICONNECTOR

(If the "RGB" indication is lit, press RGB button to turn it off.)

Press the TV/VIDEO button until the "VIDEO 1, 2 or 3" indication of the VIDEO input jacks from which desired the signals to come from appears.

The VIDEO lamp will light up.



Every time you press the TV/VIDEO button, the display will change as follows:

VIDEO 1 → VIDEO 2 → VIDEO 3* → TV channel

Adjust the volume with the VOLUME buttons.

*Set VIDEO 3/EXT AUDIO selector on the sub control panel to "VIDEO 3" if "EXT-A" appears.

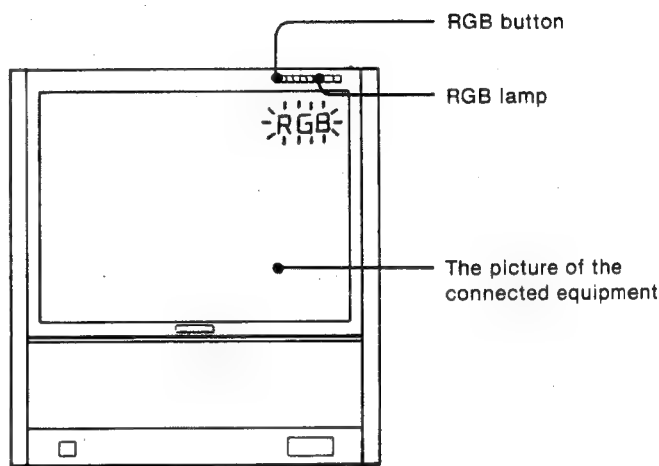
The channel number buttons on the Remote Commander or the CHANNEL scan buttons will not function while the VIDEO lamp is lit.

TO LISTEN TO THE SOUND OF THE AUDIO SOURCE CONNECTED TO THE EXTERNAL AUDIO JACKS

- 1 Set VIDEO 3/EXT AUDIO selector to "EXT AUDIO".
- 2 Press TV/VIDEO button as many times as necessary until the on-screen "EXT-A" appears.

VIEWING THE DISPLAY OF THE EQUIPMENT CONNECTED TO THE RGB MULTI INPUT CONNECTOR

Press the RGB button to display the "RGB" indication. The RGB lamp will light up.



To return to the normal TV program or to the picture of the VCR, press RGB again.

To have the indications remain on the screen, press the DISPLAY button on the Remote Commander.

Notes

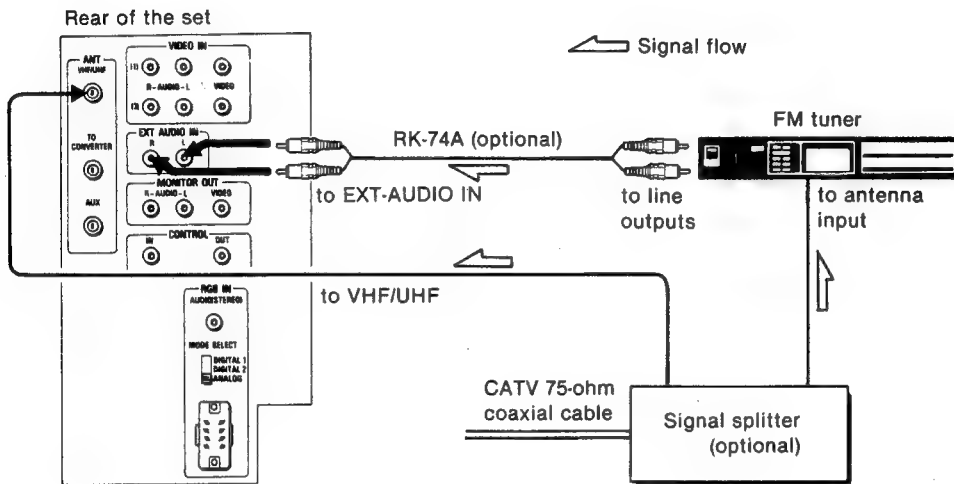
- The HUE, COLOR and SHARP (sharpness) adjustments are non-effective for the displayed RGB input. Adjust the picture with the PICTURE buttons or by adjusting the BRIGHT (brightness).
- The selected source is retained even when the power is turned off once.

1-9. ENJOYING FM SIMULCASTED PROGRAMMING

Over-the-cable FM simulcasts


Cable TV companies have also started "simulcasting" some channels like MTV (Music Television) and selected movies in stereo over the cable. In the case of cable stereo programs, however, the audio signal is not sent over the air but sent on FM frequencies over the cable.

By splitting the incoming cable signal and running it to both the TV tuner and an FM tuner/receiver, these cable programs can be enjoyed in stereo over the speakers of the projector as shown below.



Preparation

Make sure the following are properly set.

- Set VIDEO 3/EXT AUDIO to "EXT AUDIO".
- Press TV/VIDEO button as many times as necessary so that the on-screen "EXT A" indication is displayed.
- On-screen "RGB" indication or RGB lamp should be off.
(Press RGB button as necessary so that it goes off.)
- For over-the-cable FM simulcasts, the CABLE ON/OFF button should be ON , and depending on the channel to be viewed, the on-screen "AUX" indication should be as follows:
(Press ANT/AUX button to change as necessary.)
 - For regular cable TV channels:
The indication should be off.
 - For pay cable TV channels:
The indication should be displayed.

Operation

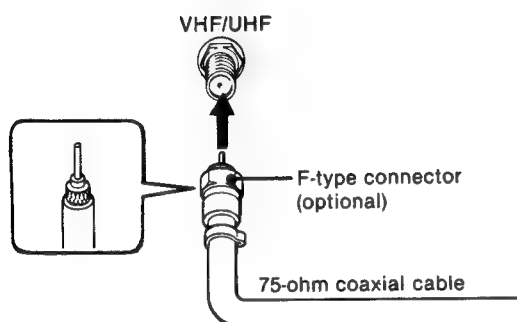
- 1 Set the FM tuner to the frequency designated by the broadcaster.
- 2 Operate the set the same as in usual TV viewing.

1-10. ANTENNA/CABLE CONNECTION

Using an outdoor antenna may be necessary. Cable TV reception is only possible by connecting a cable supplied by your local cable operator.

Prepare the antenna or cable end using the appropriate connector, and connect the antenna or cable to the antenna terminal of the set. (See A, B, C or D below.)

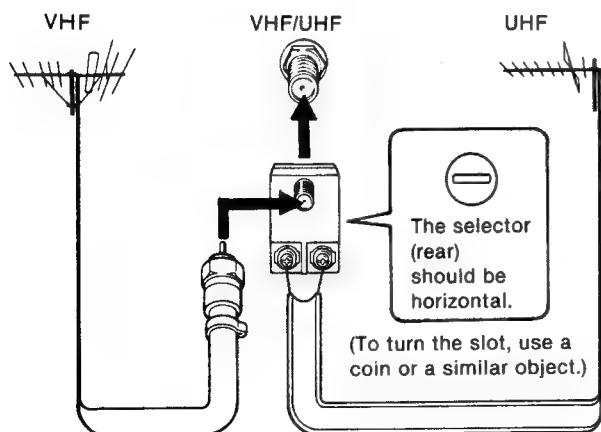
A Combination VHF/UHF antenna,* VHF antenna or CATV cable



*Most combination antennas are equipped with a signal splitter. Take off the splitter and attach the proper connector.

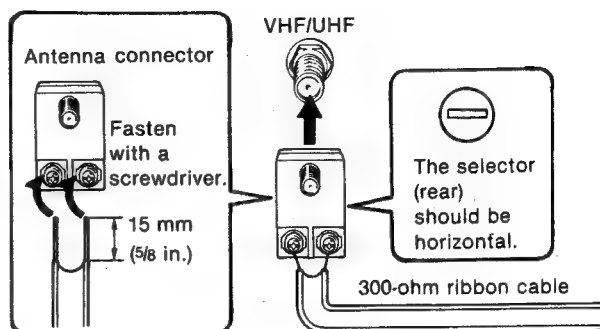
B When both VHF and UHF antennas are connected

Prepare the VHF antenna end using the appropriate connector as illustrated in A. Attach the supplied antenna connector to the TV antenna terminal, and connect the cables to the connector. (For UHF, see C.)



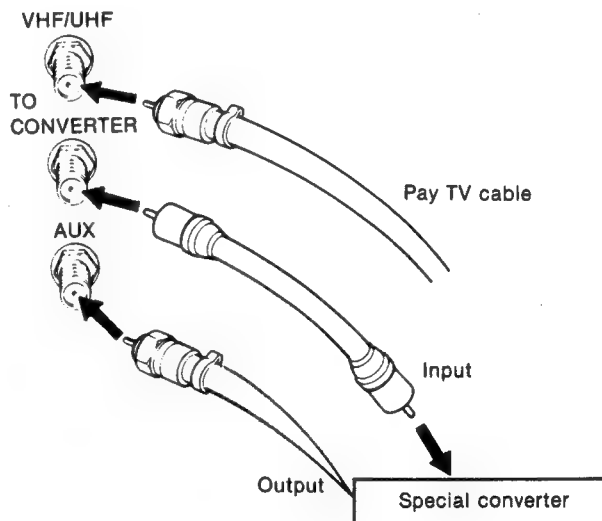
When the cable is connected to the TV in this way, snow and noise may appear in the pictures of the cable TV channels over 37 (W+1).

C UHF antenna only



D Cable with a special converter (decoder)

Pay cable TV systems use scrambled or encoded signals and require special converters (decoders)* in addition to the normal cable connection. Connect the converter (decoder) with a 75-ohm coaxial cable (optional).

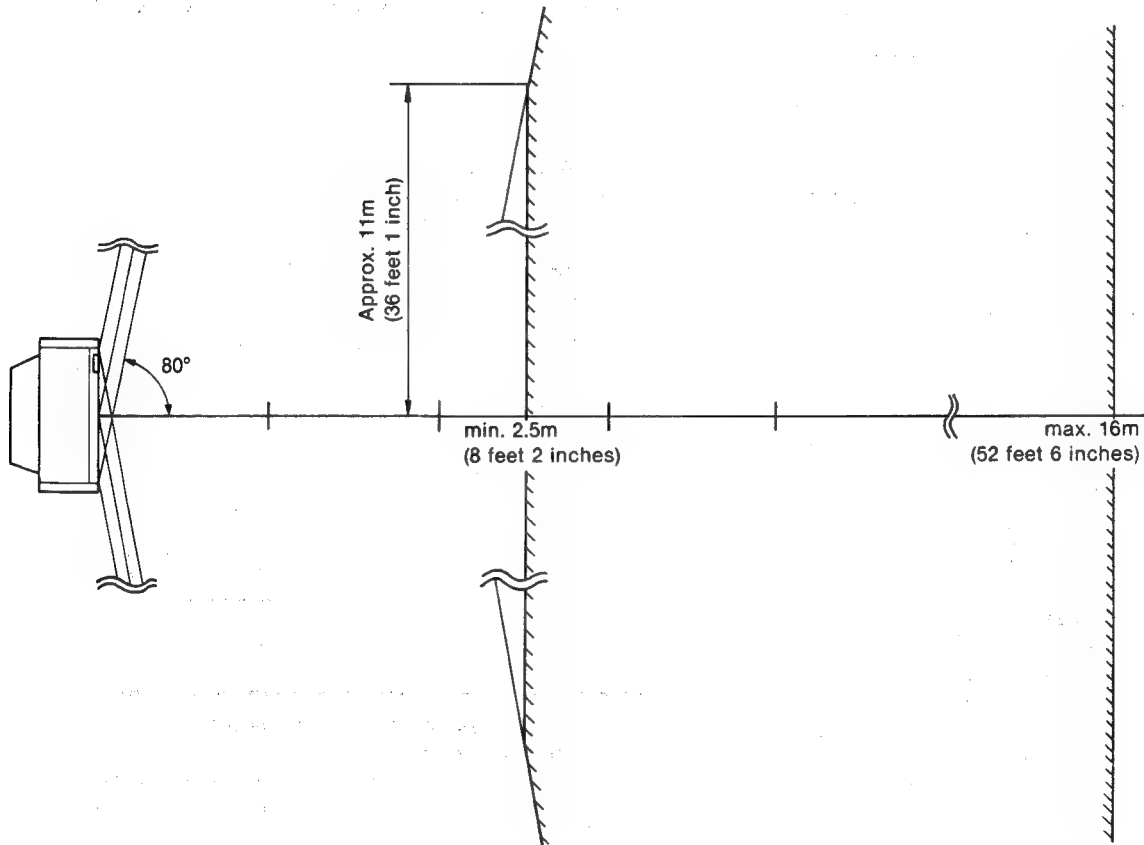
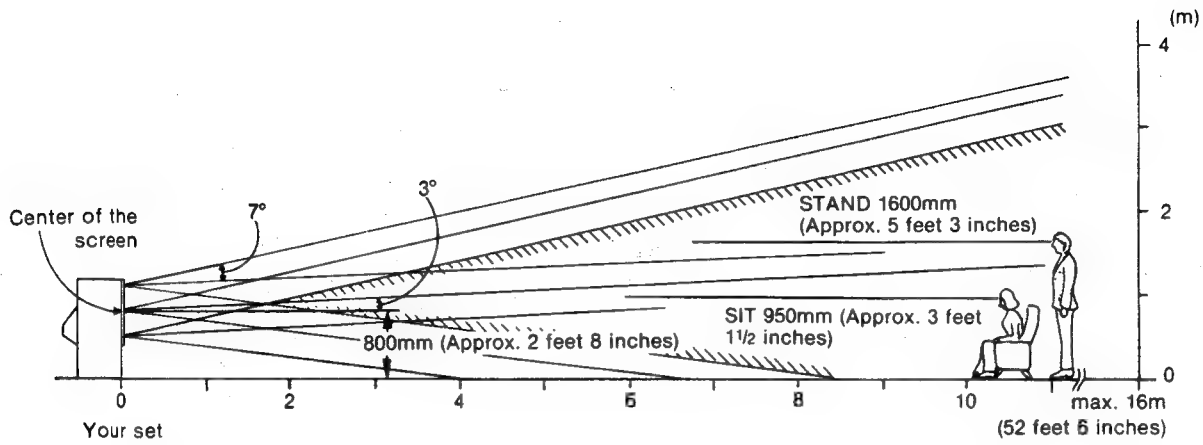


*The special converter (decoder) will be supplied by the cable company.

Note to CATV system installer in the USA:

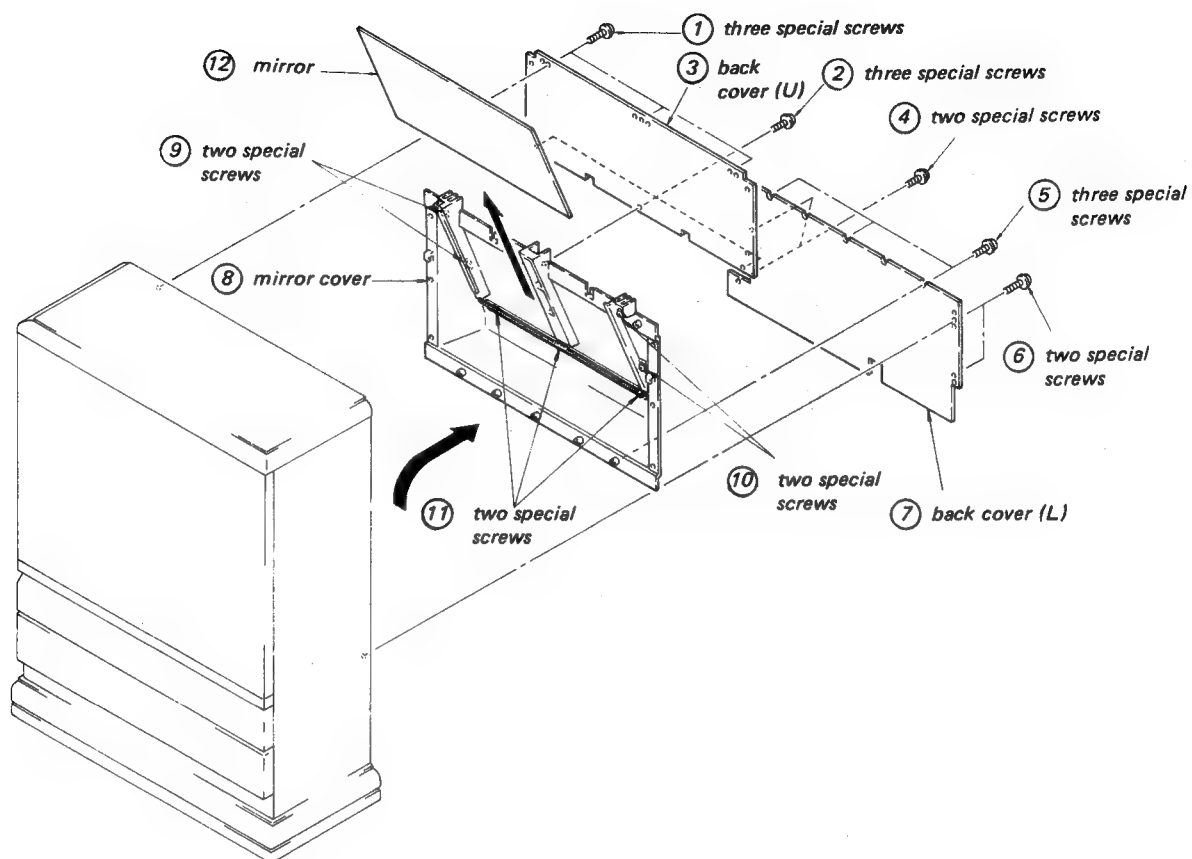
This reminder is provided to call the CATV system installer's attention to Article 820-22 of the NEC that provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as practical.

1-11. NOTICE ON AUDIENCE AREA

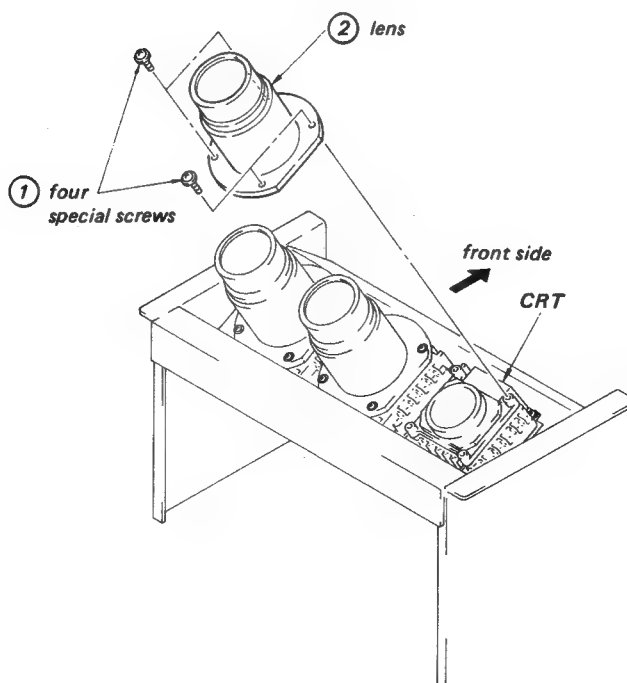


SECTION 2 DISASSEMBLY AND REPLACEMENT

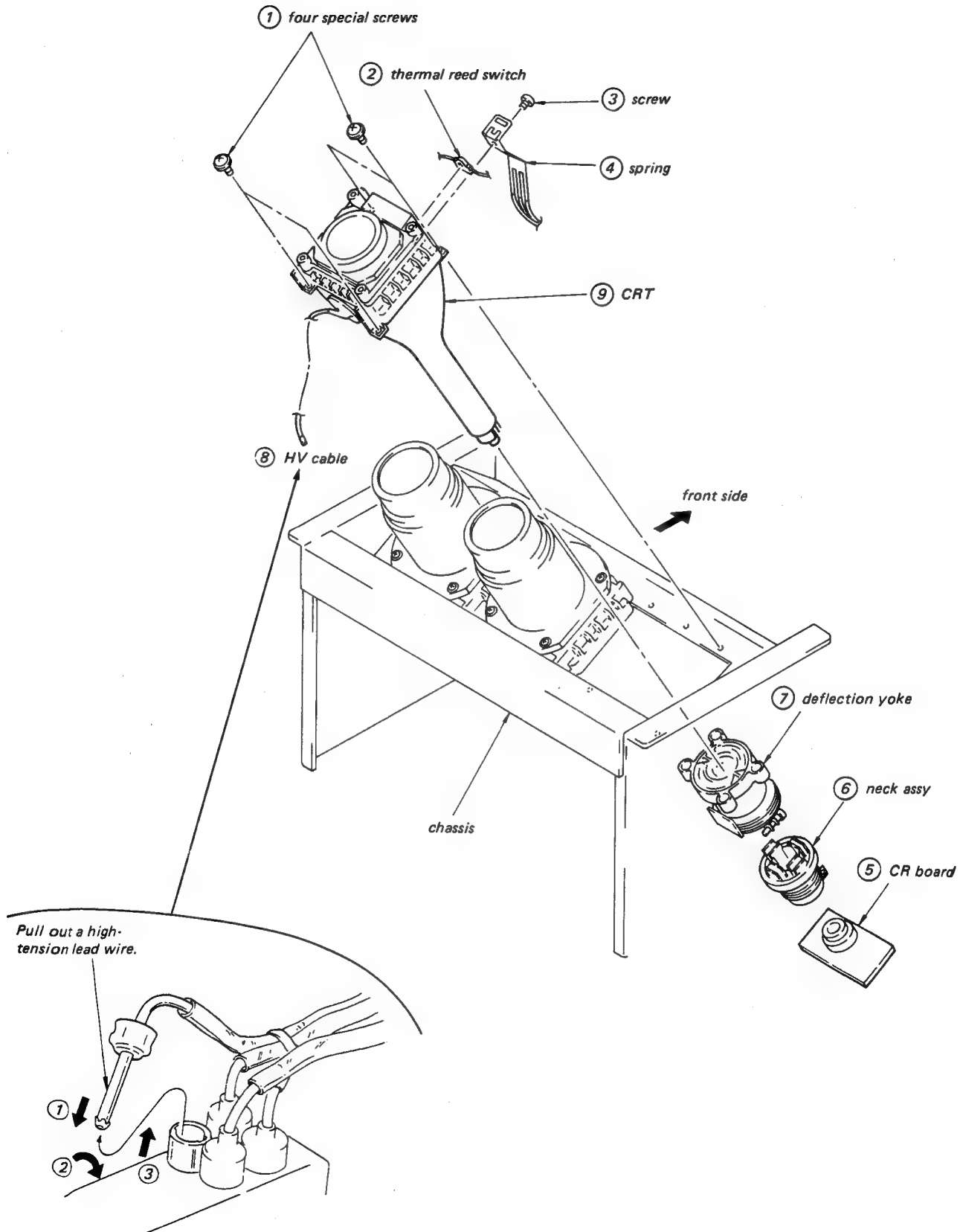
2-1. MIRROR REMOVAL



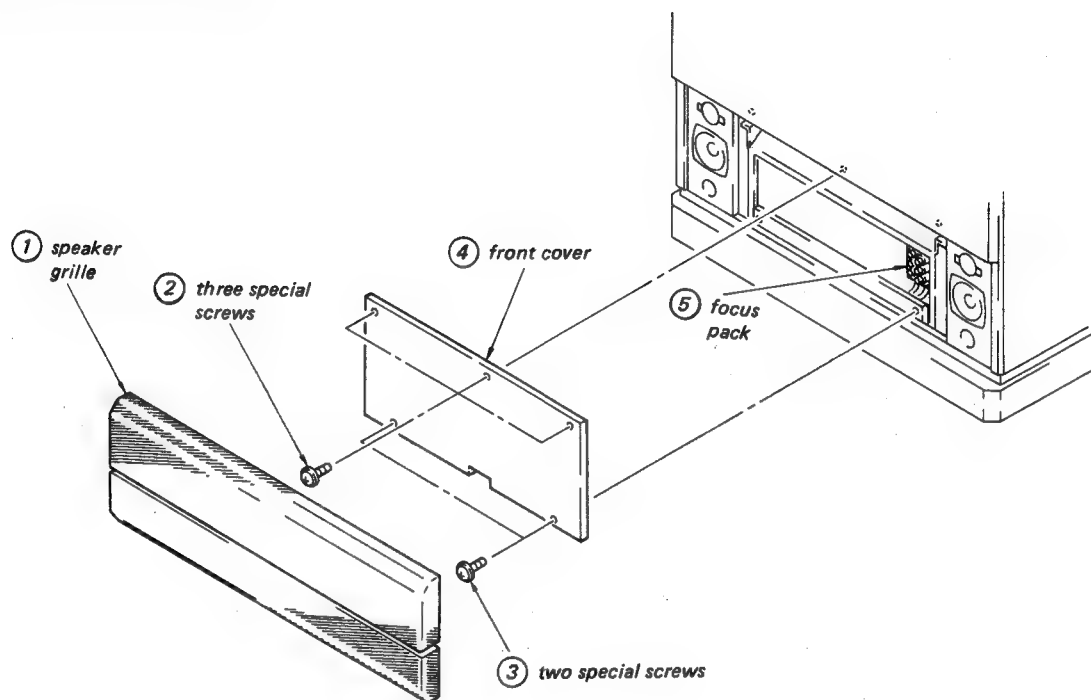
2-2. LENS REMOVAL



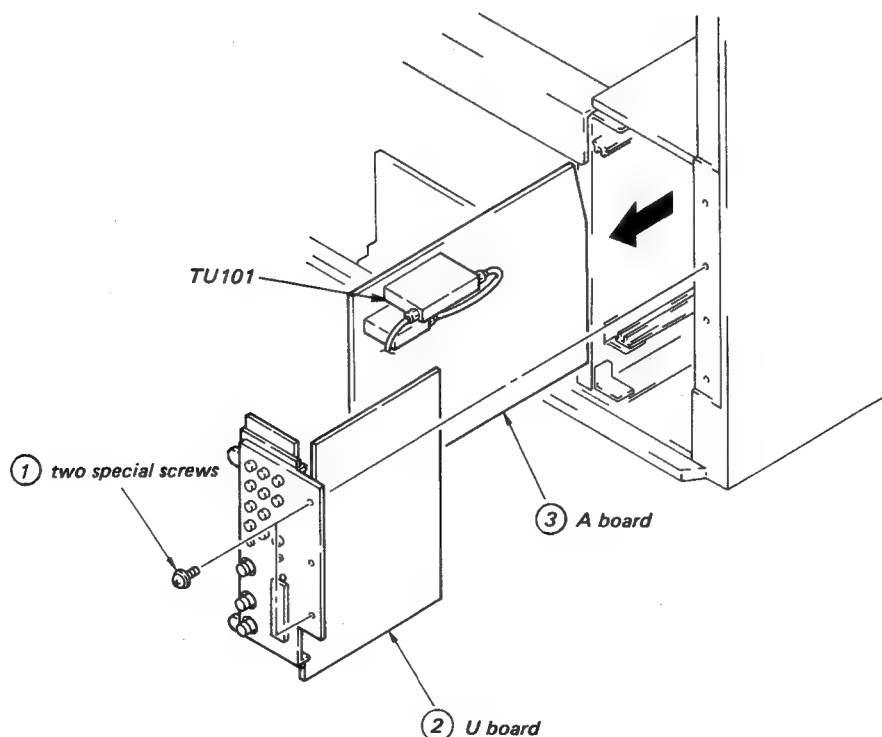
2-3. CRT REMOVAL



2-4. FOCUS PACK ADJUSTMENT



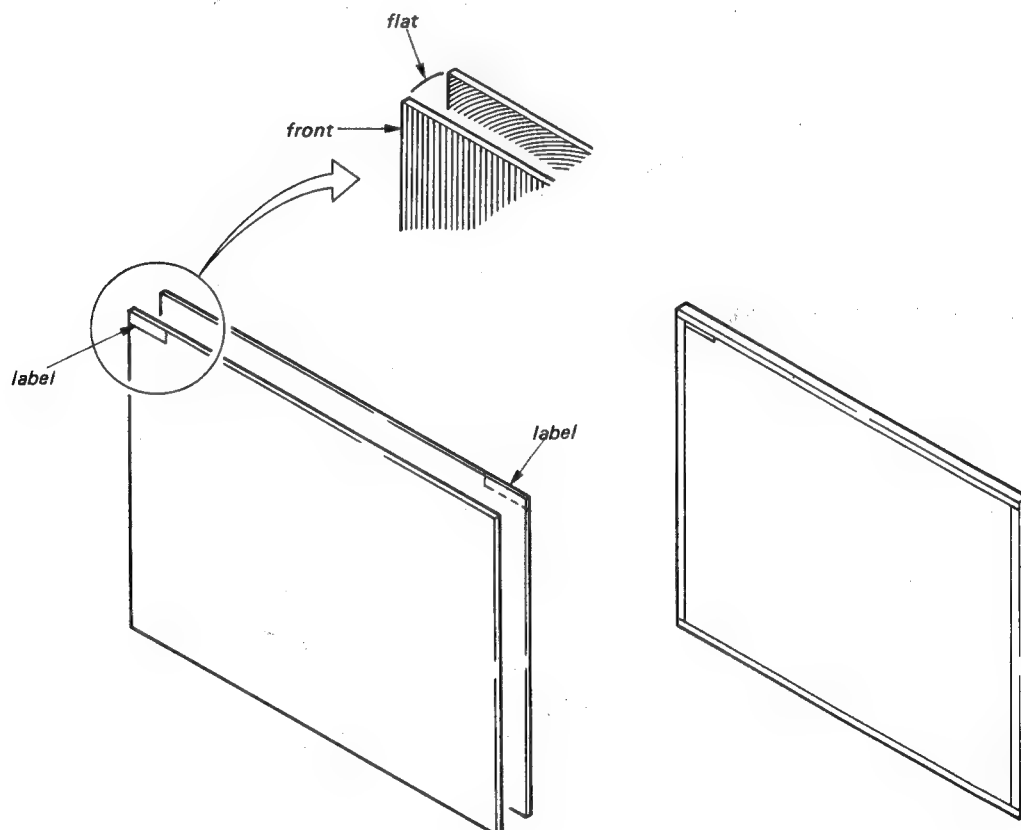
2-5. CHECKING FOR U AND A BOARD UP



2-6. LENS ASSEMBLY METHOD

This set has a lens consisting of two lenses. The front and rear lenses both have face and back sides and top and bottom positions and do not perform properly unless they are assembled correctly. When changing the lenses, read the following carefully and assemble the lenses correctly.

1. The lens top and bottom positions can be distinguished by the labels. Assemble the front and rear lenses facing the labels upward.
2. The front side has vertical stripes. Face the back side of it with the side, whose surface is coarse, of the rear lens. Tape the four corners of the lenses thoroughly without leaving untaped portions on them using an adhesive tape (Part No. 7-632-663-00). When taping, be sure to align the corners accurately so that no steps are left on the taped sides.



SECTION 3 ADJUSTMENTS

3-1. SETUP ADJUSTMENTS

3-1-1. Adjustment of Defocus Magnet

1. Adjustment (blue) of Defocus Fourpoles Magnet

1. Receive all white signal.
2. Set PICTURE to maximum, and set BRIGHTNESS to 50%.
3. After adjusting the fourpoles magnet as shown in Fig. 1, adjust the Blue Focus VR of the focus pack to have the yellow ring similar to Fig. 2.
4. Rotate the fourpoles magnet to the erasing point of the yellow ring. (90° rotation)

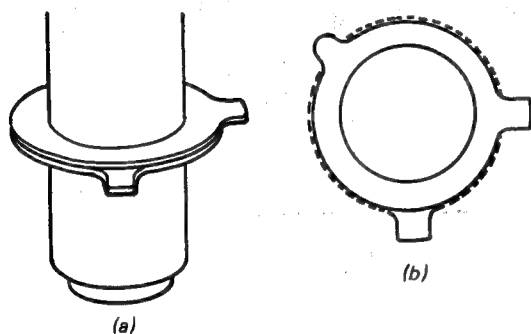


Fig. 1

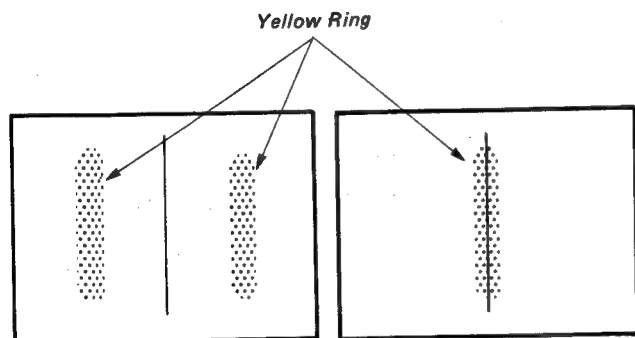


Fig. 2

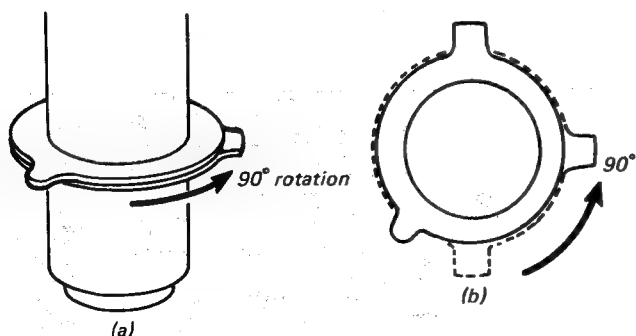


Fig. 3

2. Adjustment (red, green) of fourpoles magnet spot adjustment

1. Dot signal is received.
2. Set PICTURE to maximum, and set BRIGHTNESS to 50%.

3. Rotate the Red Focus VR of the focus pack clockwise, and defocus the SPOT as shown in Fig. 4. (So it stands out in the center of the screen.)

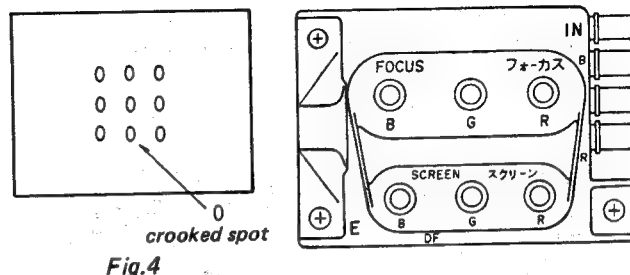


Fig. 4

4. Make the SPOT round by adjusting the fourpoles magnet for SPOT adjustment. (See Fig. 5.)

Note: Adjust the fourpoles magnet by closing and opening the upper and lower magnet layers while rotating it left and right to make the SPOT round.

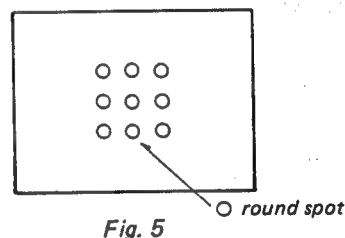


Fig. 5

5. After the SPOT becomes round, adjust the Red Focus VR of the focus pack to Just.
6. For green, repeat steps 3 to 5 in the same way.
7. Do paint lock.

3-1-2. FOCUS ADJUSTMENT

1. Check that VR of the D Board (registration adjustment) and VR (CENT) are at the mechanical center.
2. Rotate H. SHIFT VR (RV6005) on the D board to adjust the LEFT maximum.
3. Set the centering Mg mounted on the neck ass'y (RGB) to 0 magnetic field. (See Fig. 6.)

- ① Slide deflection yoke forward as far as it will go.
- ② Side neck assembly to touch the deflection yoke.

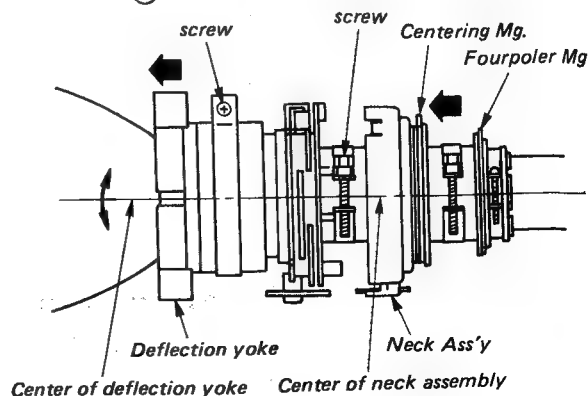


Fig. 6

-
- The diagram illustrates the alignment of a monoscope signal. The top part shows a circular component with a lens and a screw, with arrows indicating movement. The bottom part shows a grid of four corner flares (red and blue) with arrows indicating alignment.

-

-
- TP-7
(D Board)

-

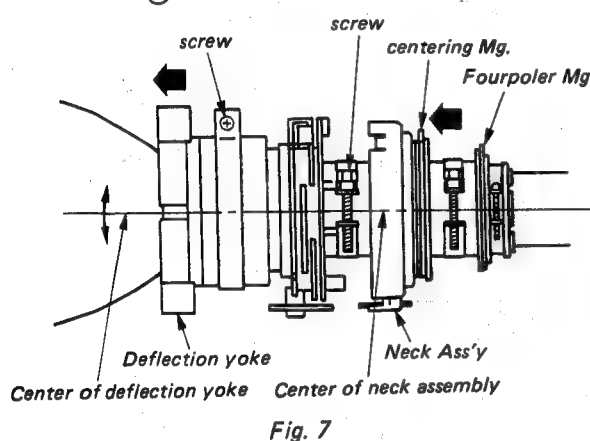
5. RV6034 and RV6035 absolute should not be rotated hereafter.



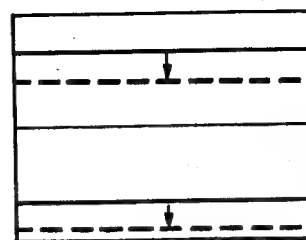
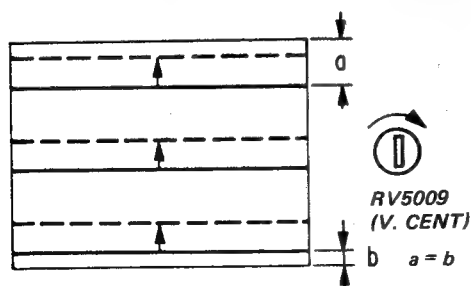
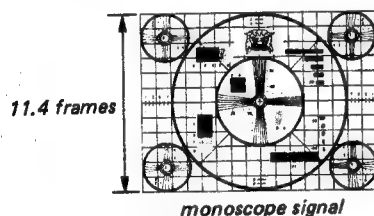
3-1-4. GREEN PICTURE ADJUSTMENT

1. Input a monoscope signal.
2. Cover a lens cap on the red and blue lenses and project green only.
3. Adjust the green deflection yoke to make the monoscope horizontal center line horizontal, then fix the deflection yoke. Adjust the green neck ass'y to obtain a match with the green deflection yoke center and fix it. (See Fig. 7.)

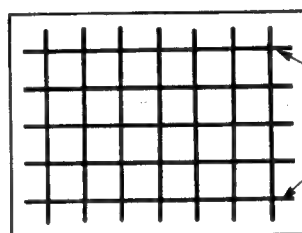
- ① Slide deflection yoke forward as far as it will go.
- ② Side neck assembly to touch the deflection yoke.



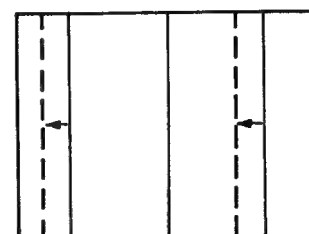
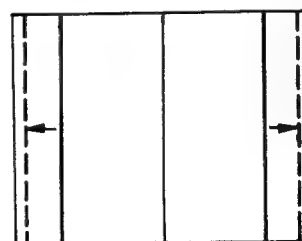
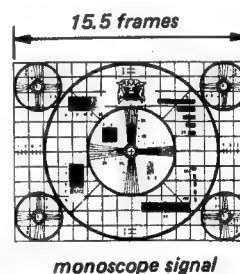
4. Rotate RV5008 (V LIN) on the E Board to obtain the best linearity in the V direction. Rotate RV5010 (V SIZE) to adjust the V size to 11.4 frames and rotate RV5009 (V CENT) to adjust the V center to the screen center.



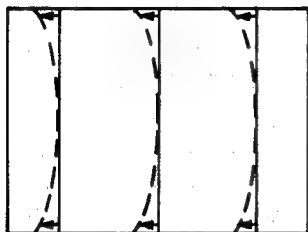
5. Check that the horizontal lines at the top and bottom edges of the monoscope hatch are horizontal and straight. (Adjust any distortion with the pin correction Mg mounted on the deflection yoke.)



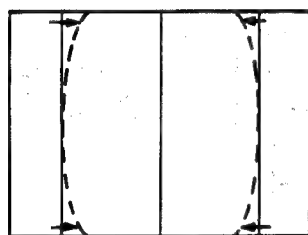
6. Rotate RV6038 (H LIN G) on the D Board to obtain the best linearity in the H direction, rotate RV6022 (H SIZE) to adjust the H size to 15.5 frames, then match the H center to the screen with the Centering Mg of G DY.



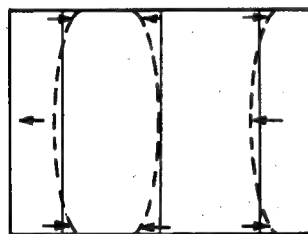
7. Set the NOR/TEST selector switch to TEST and HATCH/BAR selector switch to HATCH. Rotate RV6039 (H BOW G), RV6050 (H PIN G), and RV6048 (H SUB BOW G) to adjust as shown below.



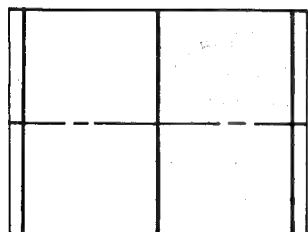

RV6039
(H. BOW)




RV6050
(H. PIN)



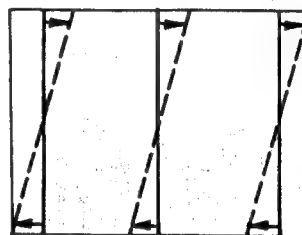

RV6048
(H. SUB BOW)



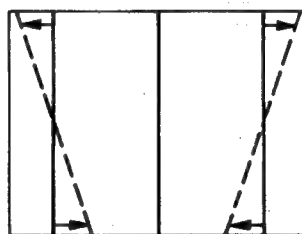
8. Correct tilting of the vertical center line using RV6026 (H SKEW G) and make the line perpendicular.

Rotate RV6025 (H KEY S G) to correct the tilting at both left and right edges to be in the same direction and in the same quantity. Rotate RV6043 (H SUB SKEW G) to correct the tilting of the left, right, and center vertical lines to be in the same direction and same quantity.

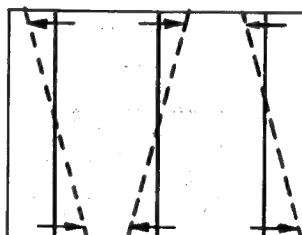
Rerotate RV6026 (H SKEW G) to eliminate tilting of all the vertical lines.



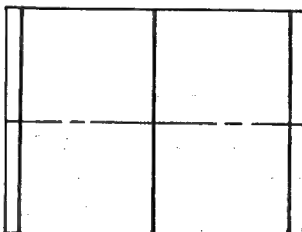

RV6026
(H. SKEW)




RV6025
(H. KEY S)

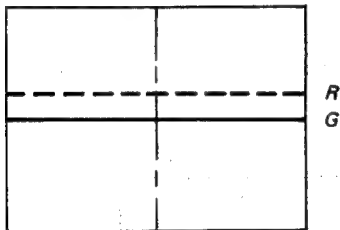



RV6043
(H. SUB SKEW)



3-1-5. GREEN AND RED VERTICAL REGISTRATION

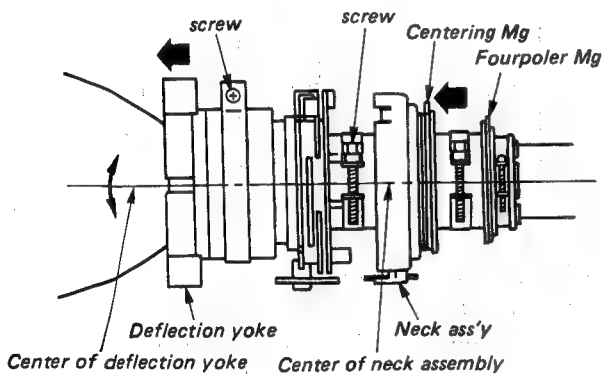
1. Cover a lens cap on the blue lens and receive a monoscope signal.
2. Operate the CENT MG of the red DY to match the red monoscope center nearly to the center of the green monoscope.
3. Set the NOR/TEST select switch to TEST and HATCH/BAR to HATCH, rotate the red DY so that the horizontal center lines of green and red match, then fix the red DY.



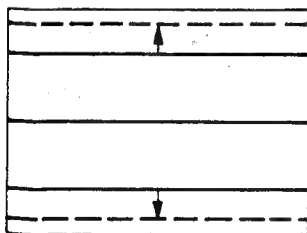
4. Align the red neck ass'y center to the red DY center and fix.

① Slide deflection yoke forward as far as it will go.

② Side neck assembly to touch the deflection yoke.

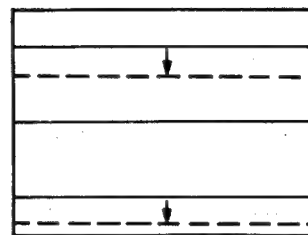
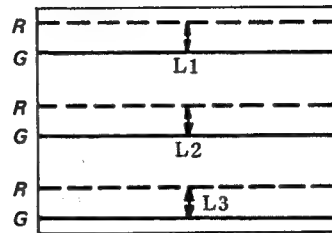


5. Rotate RV6019 (V SIZE R) on the D Board to slightly reduce the vertical width of the picture.



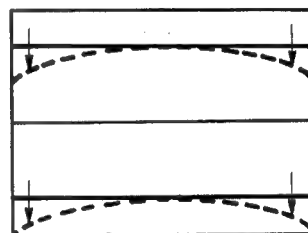

RV6019
(V. SIZE)

6. Rotate RV6020 (V LINE R) on the D Board to equalize the slip quantities of the red and green horizontal lines.



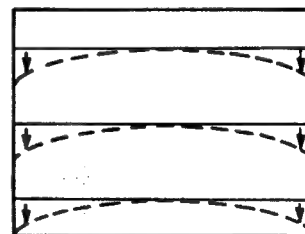

RV6020
(V. LIN)

7. Align the red and green horizontal lines with the Centering Mg.
8. Rotate RV6047 (V SUB BOW R) on the D Board to adjust the red horizontal lines in the same direction and quantity relative to the green horizontal lines. (Top and bottom edges.)



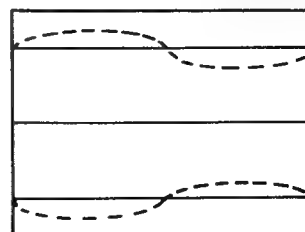

RV6047
(V. SUB BOW)

9. Rotate RV6027 (V BOW R) on the D Board to overlap the green and red horizontal lines.



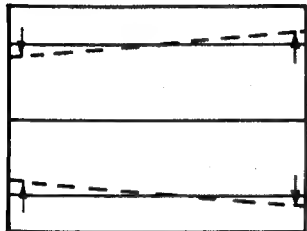

RV6027
(V BOW)

10. Rotate RV6023 (V WAVE R) on the D Board to overlap the green and red horizontal lines.



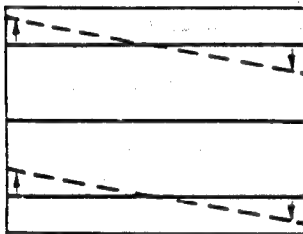

RV6023
(V. WAVE)

11. Rotate RV6024 (V KEY S R) on the D Board to adjust tilting of the red horizontal lines relative to the green horizontal lines at the top and bottom edges.



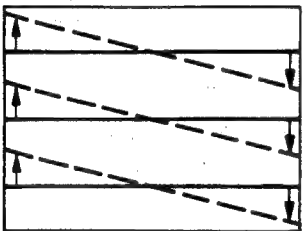
RV6024
(V. KEY S)

12. Rotate RV6042 (V SUB SKEW R) to equalize the tilting of the red horizontal lines relative to the green horizontal lines in top, bottom, and center.



RV6042
(V. SUB SKEW)

13. Rotate RV6021 (V SKEW R) to make the red horizontal lines parallel to the green horizontal lines.



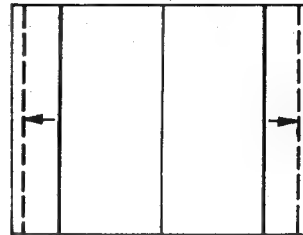
RV6021
(V. SKEW)

14. Repeat Steps 5, 6, and 7.

If the horizontal lines at the top and bottom edges do not align after trying, make a fine adjustment using the pin correction Mg mounted on the red DY.

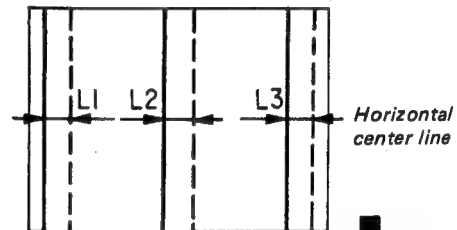
3-1-6. GREEN AND RED HORIZONTAL REGISTRATION

1. Rotate RV6007 (H SIZE R) to slightly reduce the left and right widths of the picture.

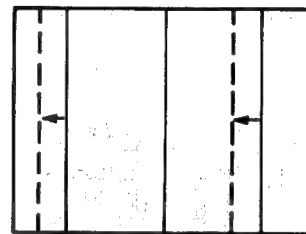


RV6007
(H. SIZE R)

2. Rotate RV6008 (H LINE R) to equalize the slip quantities of the red and green vertical lines.



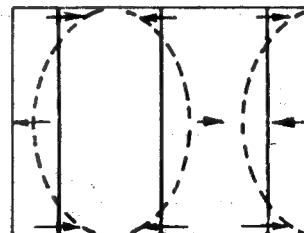
Horizontal
center line



RV6008
(H. LIN)

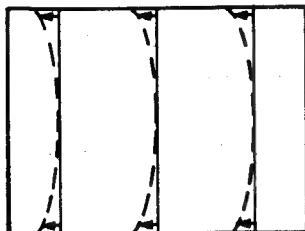
图 36-2

3. Align the red and green vertical lines using Centering Mg (R).
4. Rotate RV6045 (H SUB BOW R) to equalize the directions and quantities of the green and red vertical lines.

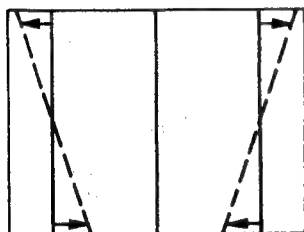


RV6045
(H. SUB BOW)

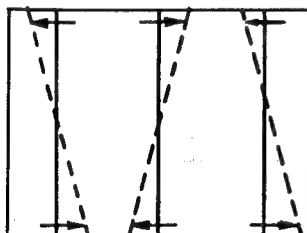
5. Rotate RV6010 (H BOW R) to overlap the green and red horizontal lines.



6. Rotate RV6012 (H KEYS R) to adjust tilting of the red vertical lines relative to the green vertical lines at left and right edges.

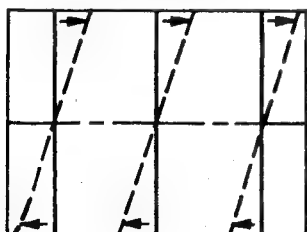


7. Rotate RV6040 (H SUB SKEW R) to adjust tilting of the red vertical lines relative to green vertical lines at left, right, and center.



RV6040
(H. SUB SKEW)

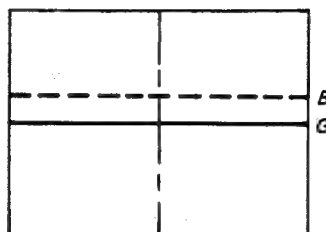
8. Rotate RV6009 (H SKEW R) to make the red and green vertical lines parallel.



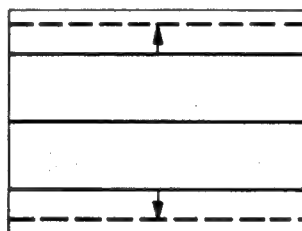
9. Repeat Steps 1, 2 and 3.

3-1-7. GREEN AND BLUE VERTICAL REGISTRATION

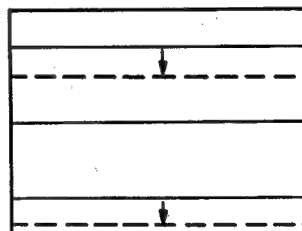
- 1) Cover a lens cap on the red lens and receive a monoscope signal.
- 2) Rotate the blue DY. Centering Mg to align the blue monoscope center nearly to the green monoscope center.



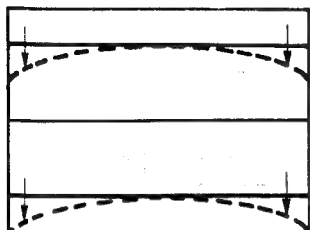
- 3) Set the NOR/TEST selector switch to TEST and HATCH/BAR switch to HATCH, rotate the blue DY to align the horizontal center lines of green and blue, then fix the blue DY.
- 4) Align the blue neck ass'y center to the blue DY center and fix them.
- 5) Rotate RV6028 (V SIZE B) to slightly reduce the widths at top and bottom of the picture.



- 6) Rotate RV6029 (V LINE B) to equalize the slip quantities of the blue and green horizontal lines.

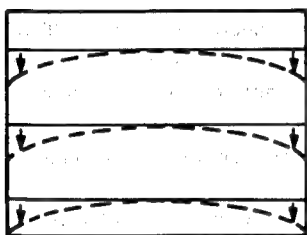


- 7) Rotate the Centering Mg (B) to align the blue and green horizontal lines.
- 8) Rotate RV6049 (V SUB BOW B) to make the directions and quantities of the blue and green horizontal lines equal.



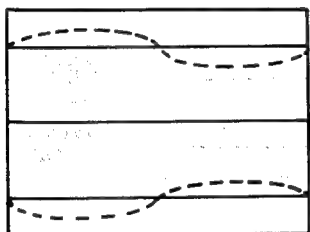

RV6049
(V SUB BOW)

- 9) Rotate RV6031 (V BOW B) to overlap the green and blue horizontal lines.



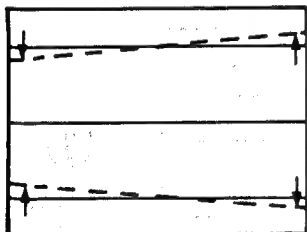

RV6031
(V BOW)

- 10) Rotate RV6032 (V WAVE B) on the D Board to overlap the green and red Horizontal lines.



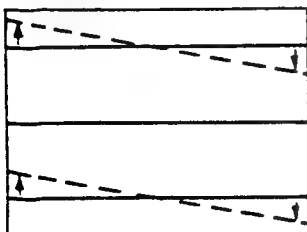

RV6032
(V. WAVE)

- 11) Rotate RV6033 (V KEYS B) to adjust tilting of the blue horizontal lines relative to the green horizontal lines at top and bottom.



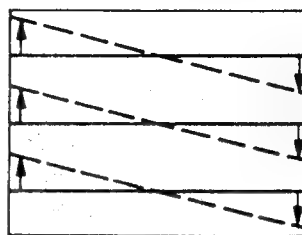

RV6033
(V KEY S)

- 12) Rotate RV6044 (V SUB SKEW B) to equalize tilting of the blue horizontal lines relative to the top, bottom, and center green horizontal lines.




RV6044
(V. SUB SKEW)

- 13) Rotate RV6030 (V SKEW B) to make the blue and green horizontal lines parallel.

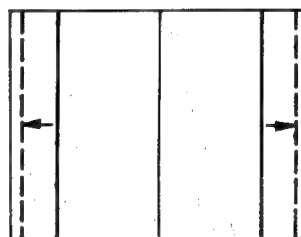



RV6030
(V SKEW)

- 14) Repeat 5), 6), and 7).

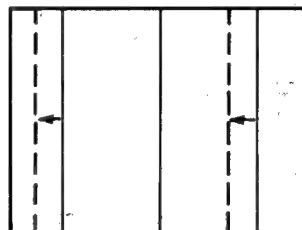
3-1-8. GREEN AND BLUE VERTICAL REGISTRATION

- 1) Rotate RV6013 (H SIZE B) and slightly reduce the left and right widths of the pictures.



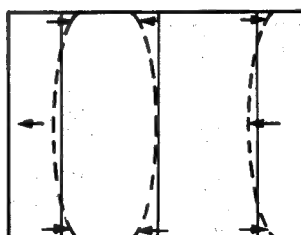

RV6013
(H SIZE)

- 2) Rotate RV6014 (H LIN B) to equalize the slip quantities of the blue and green vertical lines.



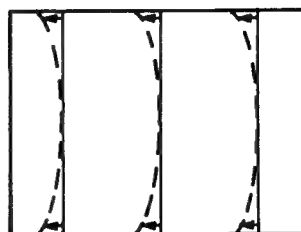

RV6014
(H LIN)

- 3) Align the blue and green vertical lines using the Centering Mg (B).
- 4) Rotate RV6046 (H SUB BOW B) to equalize directions and quantities of the green and blue vertical lines.



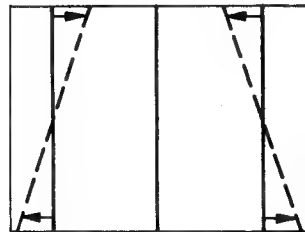

RV6046
(H SUB BOW)

- 5) Rotate RV6016 (H BOW B) to overlap and green and blue horizontal lines.



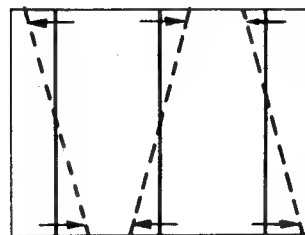

RV6016
(H BOW)

- 6) Rotate RV6018 (H KEYS B) to adjust tilting of the blue vertical lines relative to the green vertical lines at the left and right edges.



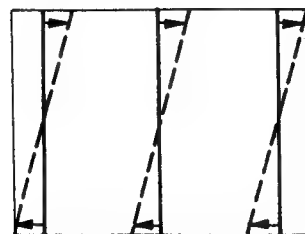
RV6018
(H KEYS)

- 7) Adjust tilting of the blue vertical lines relative to the left, right, and center green vertical lines by rotating RV6041 (H SUB SKEW B).



RV6041
(H SUB SKEW)

- 8) Rotate RV6015 (H SKEW B) to make blue and green vertical lines parallel.



RV6015
(H SKEW)

- 9) Repeat Steps 1, 2 and 3.

3-2. CIRCUIT ADJUSTMENTS

Note:

(1) TEST EQUIPMENT REQUIRED

1. Variable auto-transformer
2. Isolation transformer
3. Electrostatic voltmeter
or
Digital multimeter
(Capable of measuring voltage more than 1,100V).
4. Frequency counter
5. Color-bar/pattern generator
6. AF generator
7. Oscilloscope

(2) INPUT SIGNAL

When making these adjustments supply a white pattern, a color-bar or an off-air signal.

(3) CONTROLS AND SWITCHES SETTING

Controls and switches should be set as follows when making checks and adjustments unless otherwise noted.

PICTURE control
BRIGHT control
COLOR control } Set for best picture.
HUE control
V HOLD control
TEST/NORMAL switchNORMAL

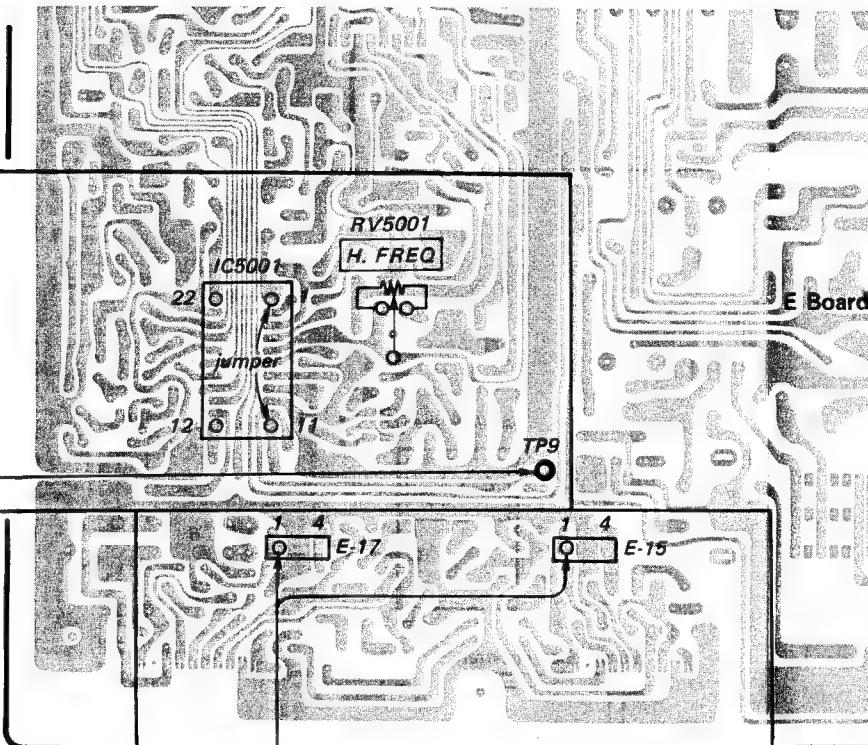
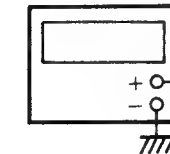
- (4) These adjustments should be performed with the rated power supply voltage unless otherwise noted.

3-2-1. E BOARD ADJUSTMENTS

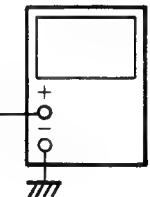
H FREQ ADJUSTMENT

1. Short between Pins ① and ⑪ of IC5001 with a jumper wire.
2. Connect a frequency counter to TP-9 and adjust to $15.734\text{kHz} \pm \frac{40}{20}\text{Hz}$ using RV5001.

frequency counter



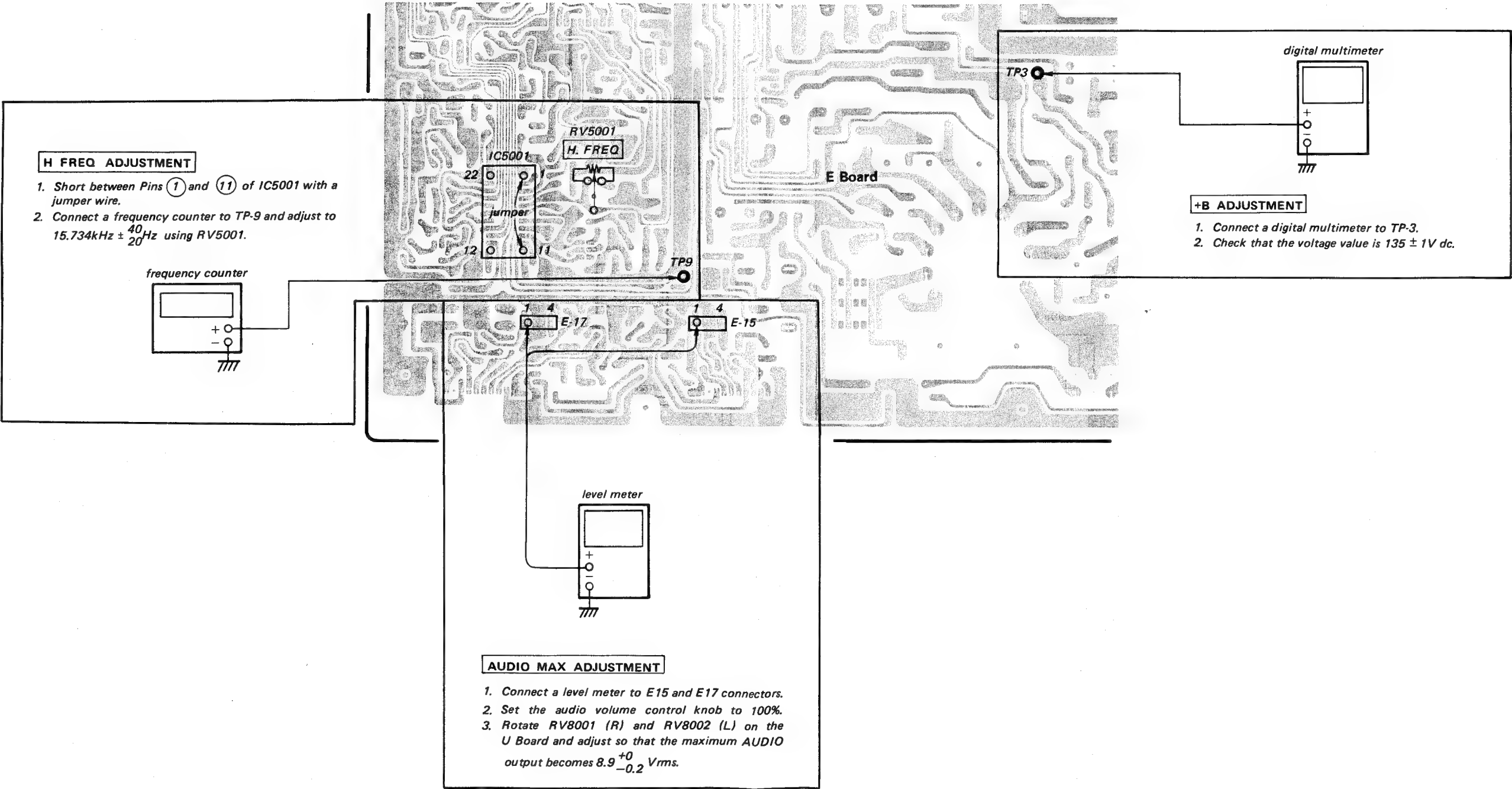
level meter



AUDIO MAX ADJUSTMENT

1. Connect a level meter to E15 and E17 connectors.
2. Set the audio volume control knob to 100%.
3. Rotate RV8001 (R) and RV8002 (L) on the U Board and adjust so that the maximum AUDIO output becomes $8.9 \pm 0.2\text{ Vrms}$.

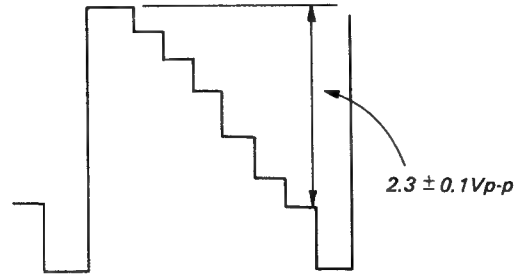
3-2-1. E BOARD ADJUSTMENTS



3-2-2. A BOARD ADJUSTMENTS

SUB CONTRAST ADJUSTMENT

1. Input a color bar signal.
2. Set PICTURE control to maximum and COLOR control to minimum.
3. Connect the oscilloscope (E) to Pin (17) of IC401.
4. Rotate RV302 to adjust the waveform of Pin (17) of IC401 as shown in the diagram.

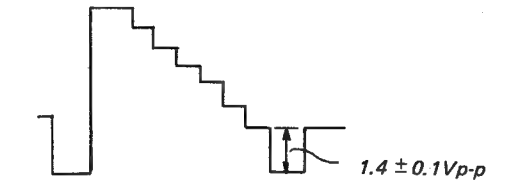


14.3MHz ADJUSTMENT

1. Receive a color bar signal.
2. Set HUE, COLOR, and PIC controls to 80%.
3. Connect Pin (30) of IC301 to the ground through a 10kΩ resistor.
4. Connect Pin (38) of IC301 to the +12V line through a 10kΩ resistor.
5. Short Pins (15) and (16) of IC301.
6. Connect a frequency counter to Pin (32) of IC301 and adjust to 3.579kHz ± 40Hz with CV316.

SUB BRT, G BIAS, AND R BIAS ADJUSTMENT

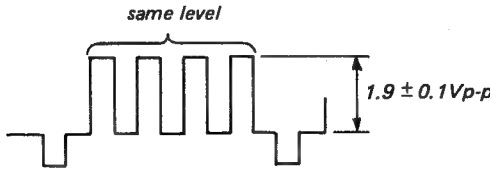
1. Input a color bar signal.
2. Set the PICTURE control switch to maximum, COLOR control switch to minimum, and BRIGHTNESS control switch to 50%.
3. Connect the oscilloscope (C) to Pin (17) of IC401.
4. Rotate RV406 (SUB BRT) to adjust the pedestal level of Pin (17) of IC401 to 1.4 ± 0.1V.



5. Connect the oscilloscope (C) to Pin (15) of IC401 and rotate RV408 (R BIAS) to adjust the pedestal level of the pin to the same value as that of the Q419 emitter (oscilloscope D).

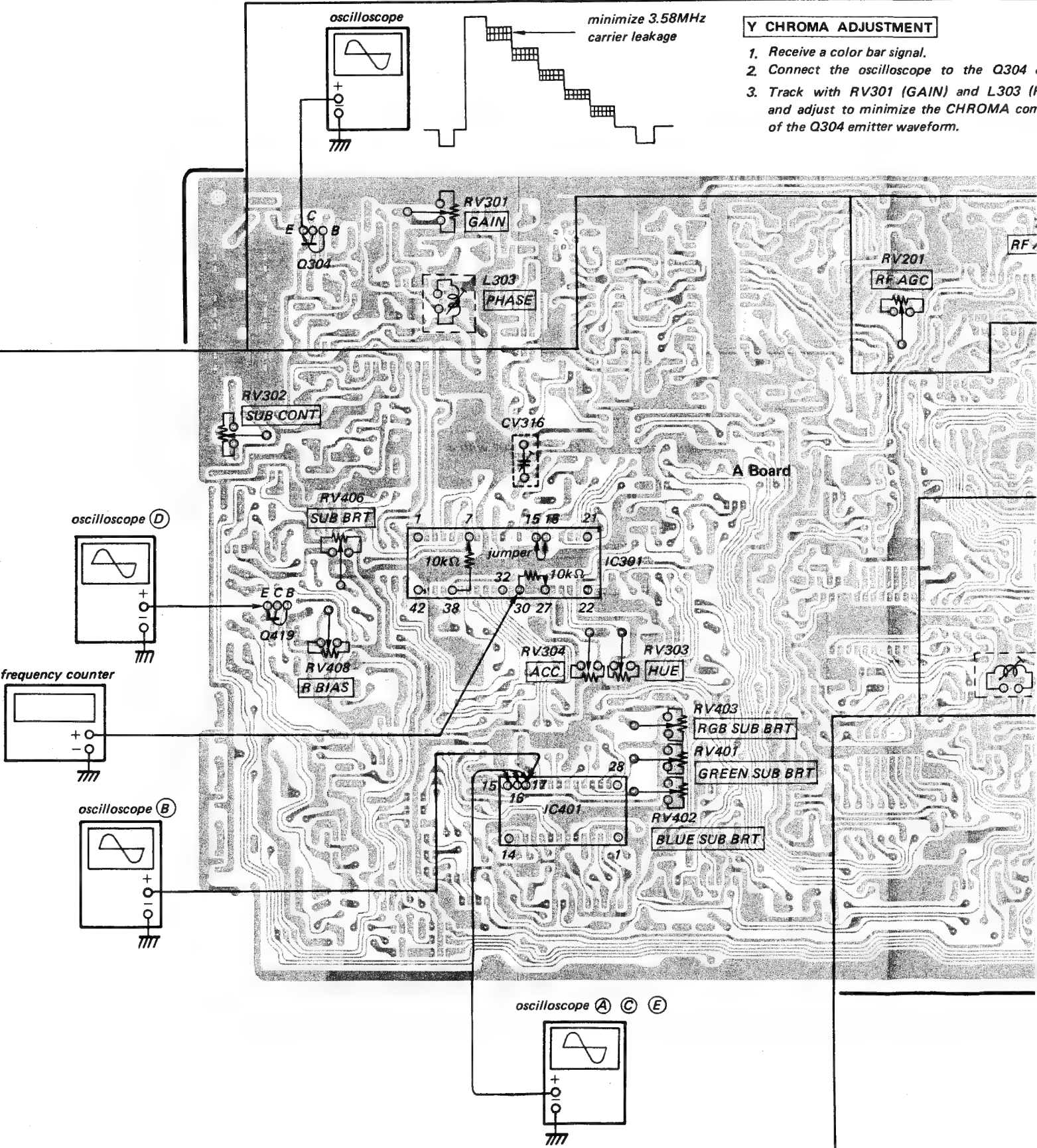
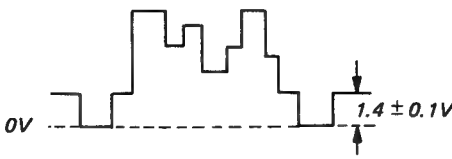
HUE CENT AND ACC ADJUSTMENT

1. Input a color bar signal.
2. Reset HUE and COLOR control and set PICTURE control to maximum.
3. Connect the oscilloscope (B) to Pin (17) of IC401.
4. Rotate RV304 (ACC) and RV303 (HUE) to adjust the waveform of Pin (17) of IC401 as shown in the diagram.
5. Check that the fourth pulse of the BLUE output is 1.9 ± 0.1Vp-p.



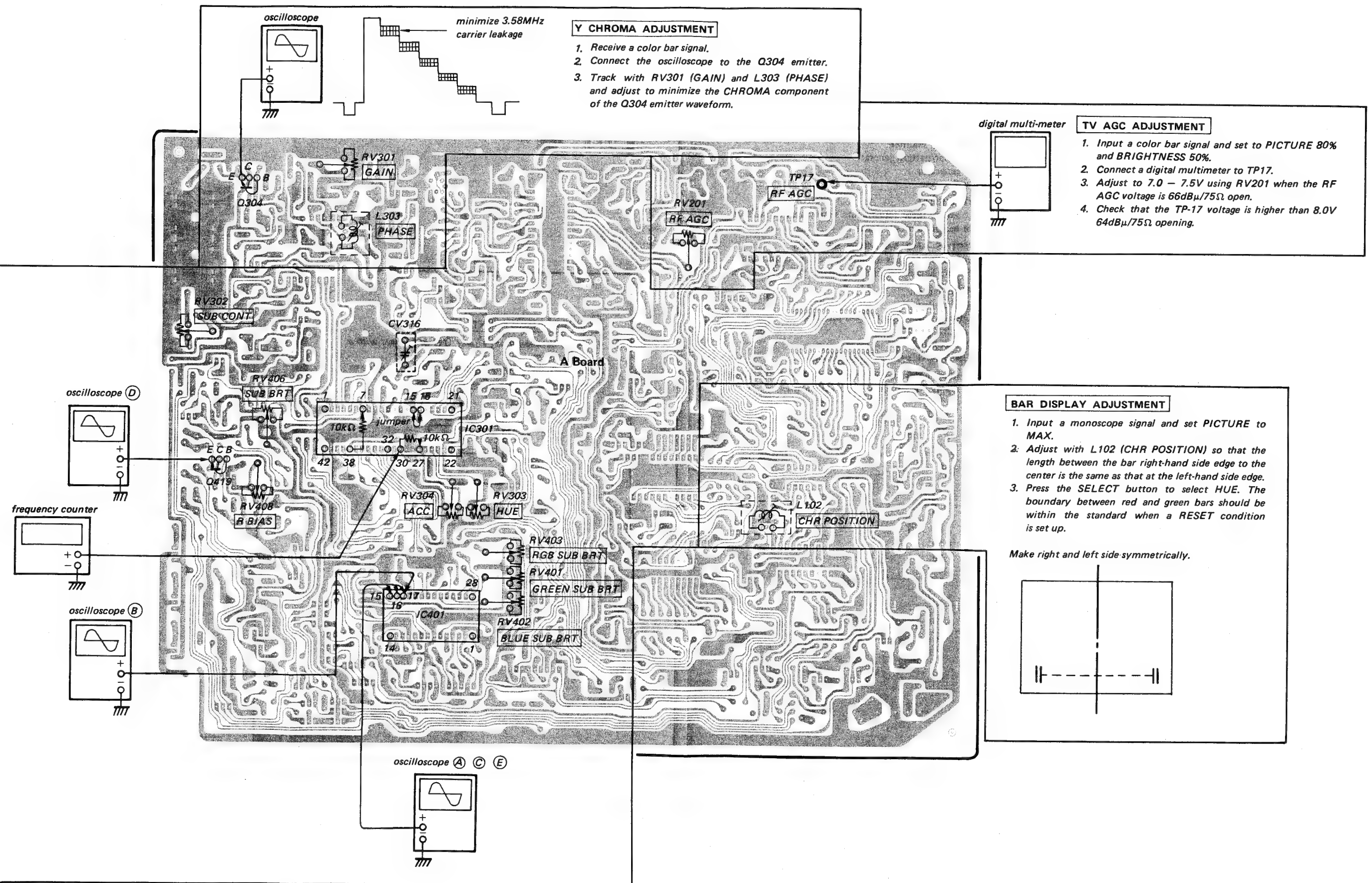
R. G. B PEDESTAL LEVEL ADJUSTMENT

1. Input analog R. G. B signal.
2. Set the mode to the R. G. B mode.
3. Connect the oscilloscope (A) to Pin (15) of IC401 and set the pedestal level to 1.4 ± 0.1V with RV403.
4. Connect the oscilloscope (A) to Pin (16) of IC401 and set the pedestal level to 1.4 ± 0.1V with RV401.
5. Connect the oscilloscope (A) to Pin (17) of IC401 and set the pedestal level to 1.4 ± 0.1V with RV402.



Y CHROMA ADJUSTMENT

1. Receive a color bar signal.
2. Connect the oscilloscope to the Q304 emitter.
3. Track with RV301 (GAIN) and L303 (PHASE) and adjust to minimize the CHROMA component of the Q304 emitter waveform.



3-2-3. U BOARD ADJUSTMENTS

1. SIGNAL SET UP

Input the following input signals:

V MAIN: MAIN CH — 400Hz, 0.7Vp-p

V SUB : SUB CH — 400Hz sine wave and select the SUB CH mode of the USA MTS encoder.

V SAP : SAP CH — 400Hz sine wave and select the SAP CH mode of the USA MTS encoder.

V SAP level is 0.42[Vp-p]

V ST : STEREO PILOT signal

Select the stereo pilot output mode of the USA MTS encoder.

V ST level 0.14Vp-p

2. INPUT SIGNAL CONFIRMATION

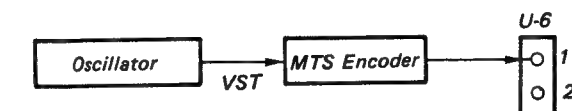
1. Input a V MAIN signal to Pin ① of Connector U-6.
2. Check that the voltage at Pin ① of IC8810 is 0.7Vp-p this time.

3. AUTO STEREO MODE

Lower the voltage at Pin ① of Connector U-15 to the ground level (Set up the AUTO STEREO MODE when adjusting USA MTS DECODE.)

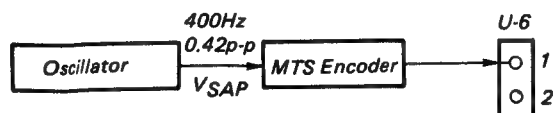
PILOT CANCEL ADJUSTMENT

1. Input a V ST signal to Pin ① of Connector U-6.
2. Connect the oscilloscope ④ to Pin ④ of IC8810 and rotate RV8817 (PILOT CANCEL) to minimize the output.
Check that the ST LED is lit this time.
* RPF is needed to ④ pin output.



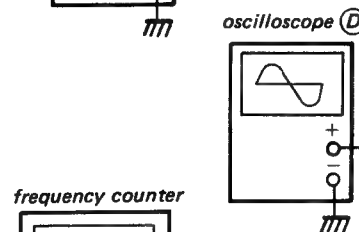
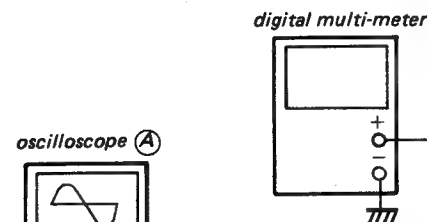
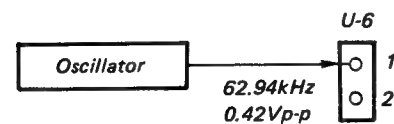
SAP LEVEL ADJUSTMENT

1. Input a V SAP signal to Pin ① of Connector U-6.
2. Change voice to the SAP mode operating on the operation panel.
3. Connect the oscilloscope ③ to Pin ② of IC8810 and rotate RV8814 (SAP GAIN) to adjust the waveform to $332 \pm 10\text{mVrms}$.



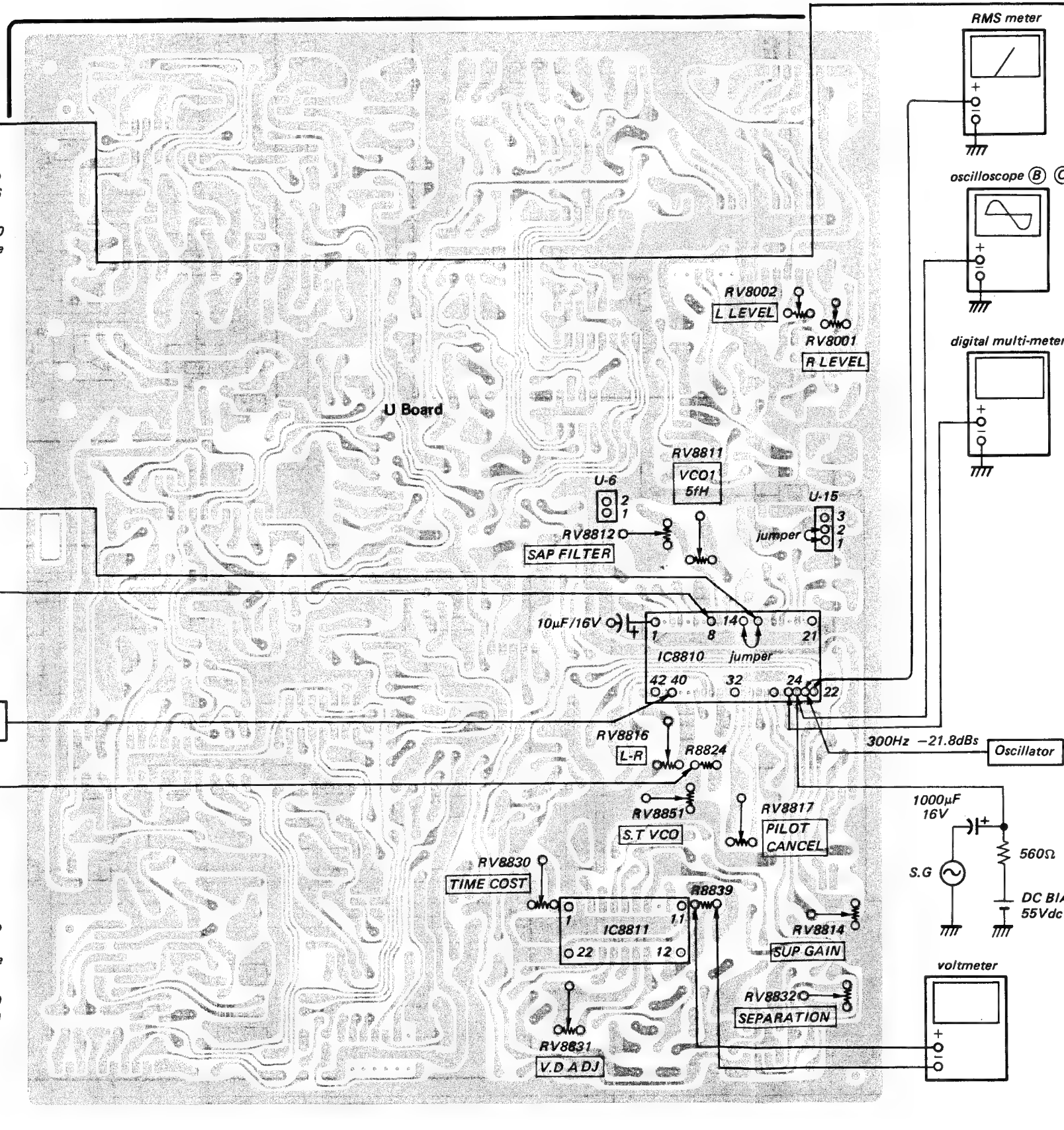
SAP AND STEREO FILTER ADJUSTMENT

1. Input a sine wave of 62.9kHz and 0.42 [Vp-p] to Pin ① [MPX IN] from Pin ① of Connector U-6 of IC8810.
2. Connect the oscilloscope ① to Pin ⑧ of IC8810 and adjust RV8812 (SAP filter) to minimize the output.



L-R LEVEL ADJUSTMENT

1. Input the V SUB and V ST composite signals to Pin ① of Connector U-6.
2. Change voice to the MAIN mode operating on the operation panel.
3. Connect the oscilloscope ③ to Pin ② of IC8810 and rotate RV8816 (L-R) to adjust the (C-R) demodulation signal to $332 \pm 10\text{mVrms}$.



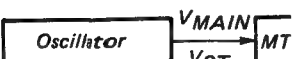
SAP VCO ADJUSTMENT

1. Input a sine wave of 78.6 to Pin ① of IC8810 from U-6.
2. Change the voltage at Pin ①. Check that the voltage is $3.4 \pm 0.3\text{V}$ dc this time.
3. Lower the voltage at Pin ① to ground level. Rotate RV8811 at Pin ② of IC8810 to adjust the output.

Oscillator

SEPARATION ADJUSTMENT

1. Input V MAIN to Pin ①.
2. Change voice to the MAIN operation panel.
3. Check that the level is $480 \pm 25\text{mVrms}$.
4. Check that the level is $\pm 50\text{mVrms}$.
5. Input a V ST signal to Pin ①.
6. Apply a sine wave of Pin ② of IC8810. Rotate RV8832 to adjust the level of Pin ③ of IC8810 this time.



NOISE REDUCTION ADJUSTMENT

1. Connect a voltmeter to RV8839 connected to Pin ①. Rotate RV8830 to adjust the level of the resistor to be 15.0 .

VARIABLE DE-EMPHASIS ADJUSTMENT

1. Set RV8831 (VD ADJ) to the mechanical center position.
2. Form a circuit as shown. Measure the level at Pin ① (record as V1) and check the level of Pin ② ($< -15\text{dB}$).
3. Change the signal of (2) to a sine wave of 300Hz, -21.8dBs . Measure the level of Pin ① (record as V2) and rotate RV8831 to obtain the desired level.

$$V2 = V1 - 11.3 \pm 0.3$$

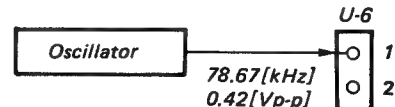
STEREO VCO ADJUSTMENT

1. Correct an chemical component between Pin ① of IC8810 and Pin ② of IC8811.
2. Correct a frequency component between Pin ① of IC8810 and Pin ② of IC8811.

3-2-4. SAFETY RELATED ADJUSTMENTS

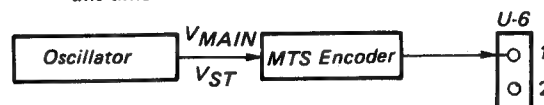
SAP VCO ADJUSTMENT

1. Input a sine wave of 78.67 [kHz] and 0.42 [Vp-p] to Pin ① of IC8810 from Pin ① of Connector U-6.
2. Change the voltage at Pin ⑭ of IC8810 to 9V. Check that the voltage at Pin ⑳ of IC8810 is $3.4 \pm 0.3V$ dc this time.
3. Lower the voltage at Pin ⑭ of IC8810 to the ground level. Rotate RV8811 to adjust the voltage at Pin ㉑ of IC8810 becomes $3.4 \pm 0.4V$ dc this time.



SEPARATION ADJUSTMENT

1. Input V_{MAIN} to Pin ① of Connector U-6.
2. Change voice to the MAIN mode operating on the operation panel.
3. Check that the level at Pin ㉓ of IC8810 is 480 ± 25 [mVrms].
4. Check that the level at Pin ㉒ of IC8810 is 480 ± 50 [mVrms].
5. Input a V_{ST} signal to Pin ① of Connector U-6.
6. Apply a sine wave of 300Hz and $-21.8dBs$ to Pin ㉔ of IC8810. Rotate RV8832 to adjust the level of Pin ㉓ of IC8810 to 120 ± 9.3 mVrms this time.



NOISE REDUCTION ADJUSTMENT

1. Connect a voltmeter to both ends of the resistor R8839 connected to Pin ⑬ of IC8811 and rotate RV8830 to adjust the voltage at both ends of the resistor to be 15.0 ± 1.0 mVdc.

VARIABLE DE-EMPHASIS ADJUSTMENT

1. Set RV8831 (VD ADJ) and RV8832 (SEPARATION) to the mechanical center.
2. Form a circuit as shown in the diagram and input a sine wave of 300Hz, $-24.3dBs$. Measure the level at Pin ㉗ of IC8810 this time (record as V1) and check that the level is $-24dBs$ < level of Pin ㉗ < $-18dBs$.
3. Change the signal of 2) to 8kHz, $-17.2dBs$. Measure the level of Pin ㉗ of IC8810 this time (record as V2) and rotate RV8831 (V. D ADJ) to adjust to obtain the following relationship:

$$V2 = V1 - 11.3 \pm 0.3 \text{ [dBs]}$$

STEREO VCO ADJUSTMENT

1. Connect an chemical capacitor (10μF/16V) between Pin ① of IC8810 and ground.
2. Connect a frequency counter between R8824 and RV8851 and rotate RV8851 (ST VCO) to adjust to 62.94 ± 0.1 kHz.

When replacing the following components, make the HV. adjustments.
E board complete
Deflection yoke
Switching regulator
FBT (T4)

L5004, L5005, L5010, C5037
C5038, C5039, C5058, C5059
C5060, C5064, C5119, R5066, R5096 } in E board

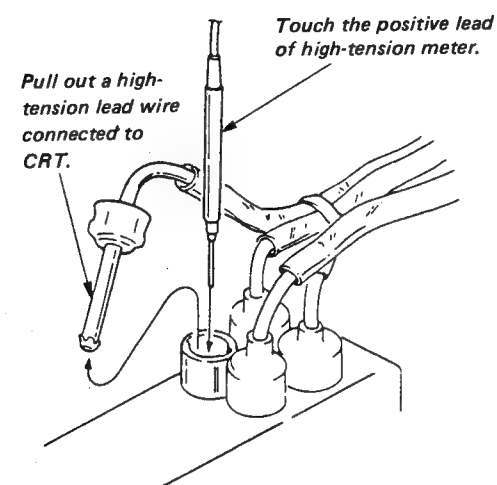
When replacing the following components, make the HV, HOLD DOWN adjustments.

HV BLOCK
E board complete
IC5001, Q5001, D5002, R5216
R5217, R5218, R5219, R5220
R5221, R5297, R5020, R5021
R5022, R5024, R5027 } in E board

+B MAX CHECK

Replace the SW. REG. confirm +B voltage.
If this not satisfied change the SW. REG.

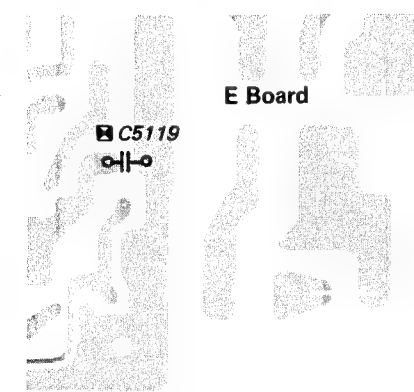
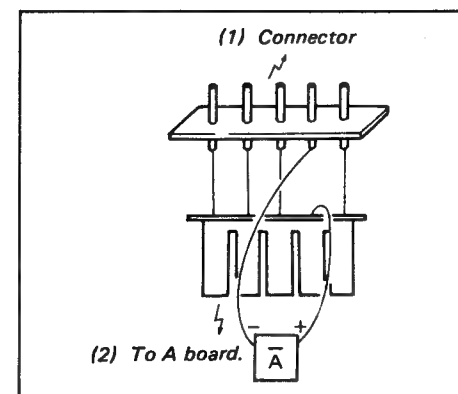
1. Supply 130V ac to with variable auto-transformer.
2. Feed in a dot signal.
3. Connect the digital multimeter to C56 plus side and set the power switch to ON.
4. Set the PICTURE and BRIGHTNESS control at minimum.
5. Confirm the voltage on digital multimeter is less than 136V dc.



(1) When a high tension meter is available.

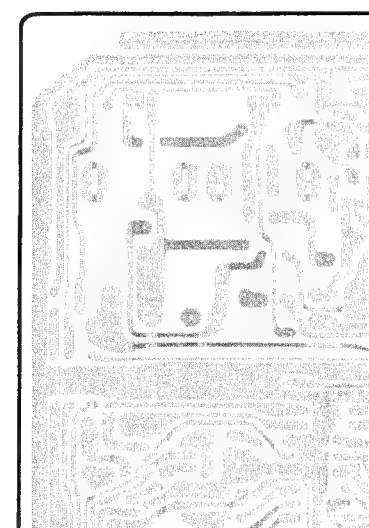
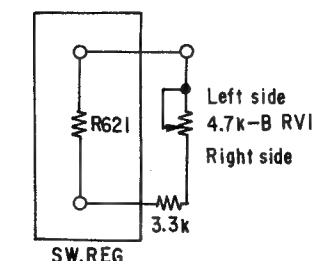
HV ADJUSTMENT (R5217, R5218)

1. Confirm that the POWER switch is in OFF position.
2. Connect the positive lead of the high tension meter to the HV Block and negative lead to the ground lug beside the heat sink.
3. Disconnect the A-2 connector on the A board and install the tool shown in the figure. Connect a DC ammeter (3mA range) with the A board side connected to plus (+) side.
4. Feed in a dot pattern from a color-bar/pattern generator and supply 120V ac to with variable auto-transformer.
5. Disconnect A-21, A-22 and A-23 connector from A board.
6. Turn the POWER to ON and confirm the raster disappears.
7. Confirm that there is less than 33.90 kV on high tension meter.
8. Turn the POWER switch to OFF and connect the A-21, A-22 and A-23 of A board.
9. Turn the POWER switch to ON and feed in a monoscope pattern.
10. Adjust the PICTURE and BRIGHT control so that IABL $1550 \pm 100\mu A$.
11. Confirm that there is less than 32-10 kV on high tension meter.
12. If necessary, select C5119 and repeat above steps.
13. Turn the POWER switch to OFF.



HV HOLD DOWN ADJUSTMENT (R5217, R5218)

1. Confirm that the POWER switch is in OFF position.
2. Connect the positive lead of the high tension meter to the HV Block and negative lead to the ground lug beside the heat sink.
3. Mount ceramic capacitor (470pF) to C5119 of E board.
4. Disconnect A-21, A-22 and A-23 connector of A board.
5. Remove the SW. REG and take off G board.
6. Remove R620 and R621 of G board.
7. Install the tool shown in the figure.
8. Disconnect the A-2 connector on the A board and install the tool shown in the figure. Connect a DC ammeter (3mA range) with the A board side connected to plus (+) side.
9. Feed in a dot pattern from a color-bar/pattern generator.
10. Supply 120V ac to with variable auto-transformer.
11. Turn the POWER switch to ON.
12. Adjust RV1, so that HV HOLD DOWN circuit operate.
13. Confirm that the POWER is automatically turned off just when the voltage on the high tension meter is less than 34.65kV (When the raster disappears) if this not satisfied select the R5217 and R5218.
14. Turn the POWER switch to OFF and feed in a monoscope pattern.
15. Turn RV1 to counterclockwise and connect A-21, A-22 and A-23 connector for A board.
16. Turn the POWER switch to ON and set the PICTURE and BRIGHT control at max.
17. Adjust RV1 so that HV HOLD DOWN circuit operate.
18. Confirm that there is less than 33.10kV and IABL is $1650 \pm 100\mu A$.
19. Turn the POWER switch to OFF.
20. Disconnect the high tension meter and DC ammeter.
21. Remove the tool and mount R620 and R621.



(2) When a high tension meter is not available.

HV ADJUSTMENT (R5217, R5218)

1. Check if the POWER SW in OFF.
2. Mount the 680pF/2 kV ceramic capacitor on E board's C5119. If the capacitor is already mounted on C5119, mount the 680pF/2 kV ceramic capacitor in parallel with the C5119.

HV HOLD DOWN ADJUSTMENT (R5217, R5218, C5119)

1. Open the front registration panel, and set NOR/TEST selector to TEST. The built-in pattern will then be received.
2. Set the user's control to RESET, and set TURE to 80%.
3. Check if the synchronization of the screen play is normal. If the synchronization is adjust by the RV5001 on the E board.
4. The resistance of the E board's R5217 R5218 increases steadily and the HV HOLD DOWN circuit operates. Select the resist which clears the screen display.
5. Mount two 680pF/2 kV ceramic capacitor parallel with the E board's C5119. If it cannot be mounted normally, mount it the back of the board.

FETY RELATED ADJUSTMENTS

Using the following components, make adjustments.

Complete
Make
Regulator

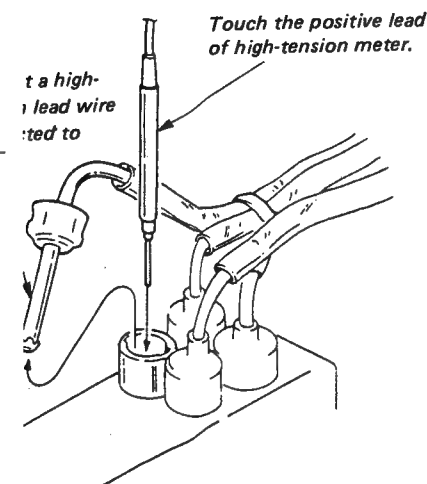
005, L5010, C5037
039, C5058, C5059
064, C5119, R5066, R5096 } in E board

Using the following components, make HV HOLD DOWN adjustments.

Complete
001, D5002, R5216
018, R5219, R5220
097, R5020, R5021
124, R5027 } in E board

CHECK

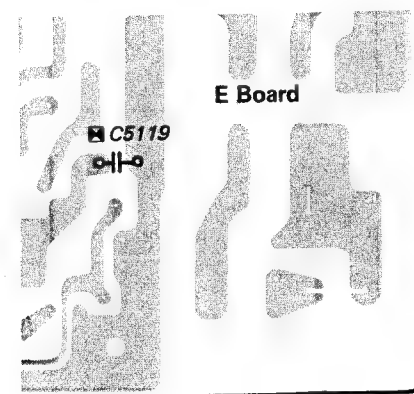
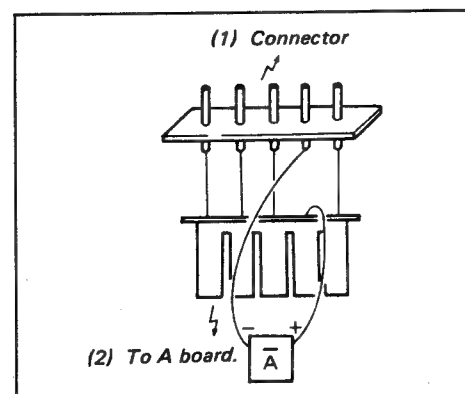
1. SW. REG. confirm +B voltage.
2. If not satisfied change the SW. REG.
3. Supply 130V ac to with variable auto-transformer.
4. Feed in a dot signal.
5. Set the digital multimeter to C56 plus side.
6. Turn the power switch to ON.
7. Adjust the PICTURE and BRIGHTNESS control at max.
8. Measure the voltage on digital multimeter is an 136V dc.



(1) When a high tension meter is available.

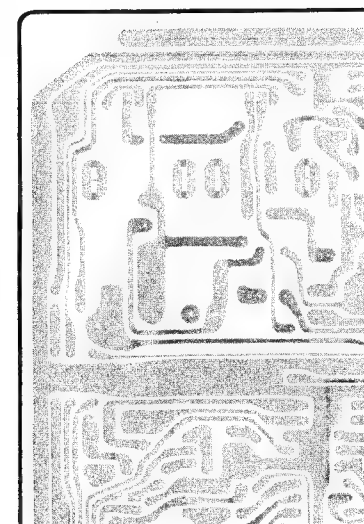
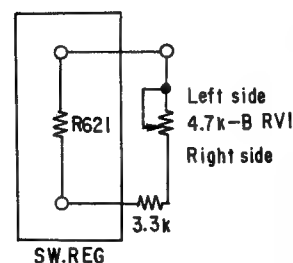
HV ADJUSTMENT (R5119)

1. Confirm that the POWER switch is in OFF position.
2. Connect the positive lead of the high tension meter to the HV Block and negative lead to the ground lug beside the heat sink.
3. Disconnect the A-2 connector on the A board and install the tool shown in the figure. Connect a DC ammeter (3mA range) with the A board side connected to plus (+) side.
4. Feed in a dot pattern from a color-bar/pattern generator and supply 120V ac to with variable auto-transformer.
5. Disconnect A-21, A-22 and A-23 connector from A board.
6. Turn the POWER to ON and confirm the raster disappears.
7. Confirm that there is less than 33.90 kV on high tension meter.
8. Turn the POWER switch to OFF and connect the A-21, A-22 and A-23 of A board.
9. Turn the POWER switch to ON and feed in a monoscope pattern.
10. Adjust the PICTURE and BRIGHT control so that $I_{ABL} 1550 \pm 100\mu A$.
11. Confirm that there is less than 32.10 kV on high tension meter.
12. If necessary, select C5119 and repeat above steps.
13. Turn the POWER switch to OFF.



HV HOLD DOWN ADJUSTMENT (R5217, R5218)

1. Confirm that the POWER switch is in OFF position.
2. Connect the positive lead of the high tension meter to the HV Block and negative lead to the ground lug beside the heat sink.
3. Mount ceramic capacitor (470pF) to C5119 of E board.
4. Disconnect A-21, A-22 and A-23 connector of A board.
5. Remove the SW. REG and take off G board.
6. Remove R620 and R621 of G board.
7. Install the tool shown in the figure.
8. Disconnect the A-2 connector on the A board and install the tool shown in the figure. Connect a DC ammeter (3mA range) with the A board side connected to plus (+) side.
9. Feed in a dot pattern from a color-bar/pattern generator.
10. Supply 120V ac to with variable auto-transformer.
11. Turn the POWER switch to ON.
12. Adjust RV1, so that HV HOLD DOWN circuit operate.
13. Confirm that the POWER is automatically turned off just when the voltage on the high tension meter is less than 34.65kV (When the raster disappears) if this not satisfied select the R5217 and R5218.
14. Turn the POWER switch to OFF and feed in a monoscope pattern.
15. Turn RV1 to counterclockwise and connect A-21, A-22 and A-23 connector for A board.
16. Turn the POWER switch to ON and set the PICTURE and BRIGHT control at max.
17. Adjust RV1 so that HV HOLD DOWN circuit operate.
18. Confirm that there is less than 33.10kV and I_{ABL} is $1650 \pm 100\mu A$.
19. Turn the POWER switch to OFF.
20. Disconnect the high tension meter and DC ammeter.
21. Remove the tool and mount R620 and R621.



(2) When a high tension meter is not available

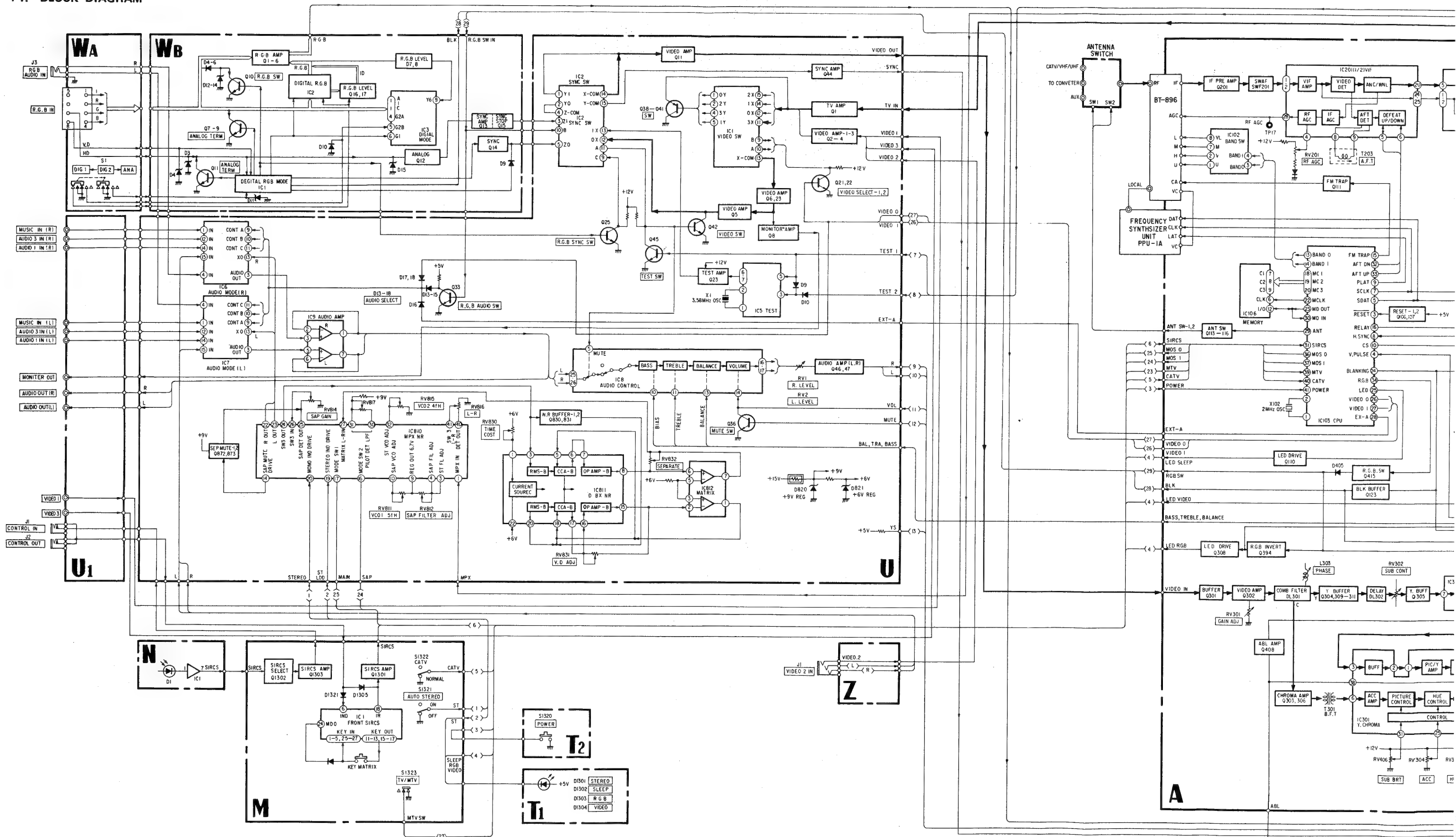
HV ADJUSTMENT (R5119)

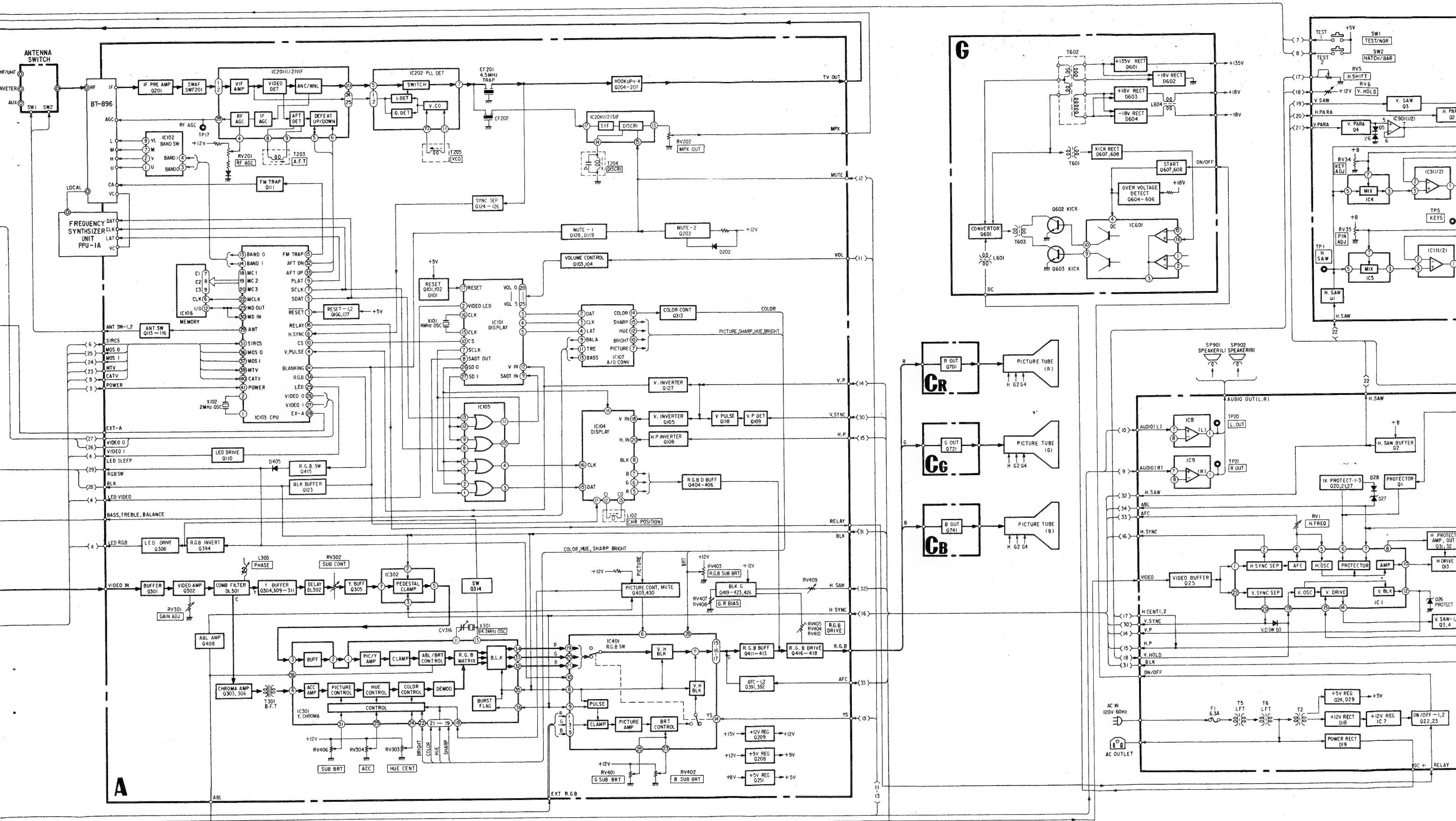
1. Check if the POWER SW in OFF.
2. Mount the 680pF/2 kV ceramic capacitor on the E board's C5119.
If the capacitor is already mounted on the C5119, mount the 680pF/2 kV ceramic capacitor in parallel with the C5119.

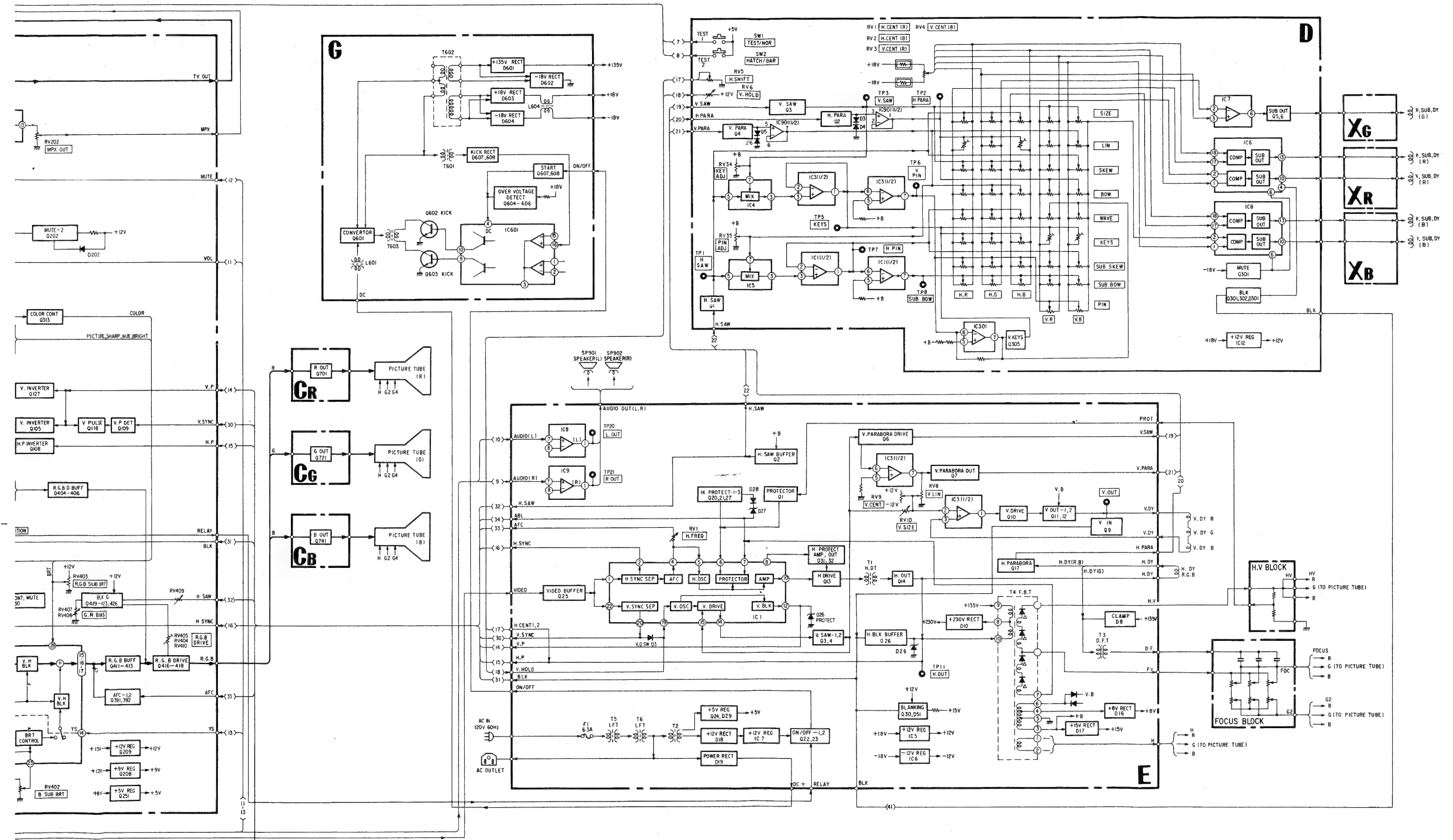
HV HOLD DOWN ADJUSTMENT (R5217, R5218, C5119)

1. Open the front registration panel, and set the NOR/TEST selector to TEST. The built-in test pattern will then be received.
2. Set the user's control to RESET, and set PICTURE to 80%.
3. Check if the synchronization of the screen display is normal. If the synchronization is off, adjust by the RV5001 on the E board.
4. The resistance of the E board's R5217 and R5218 increases steadily and the HV HOLD DOWN circuit operates. Select the resistance which clears the screen display.
5. Mount two 680pF/2 kV ceramic capacitors in parallel with the E board's C5119.
If it cannot be mounted normally, mount it on the back of the board.

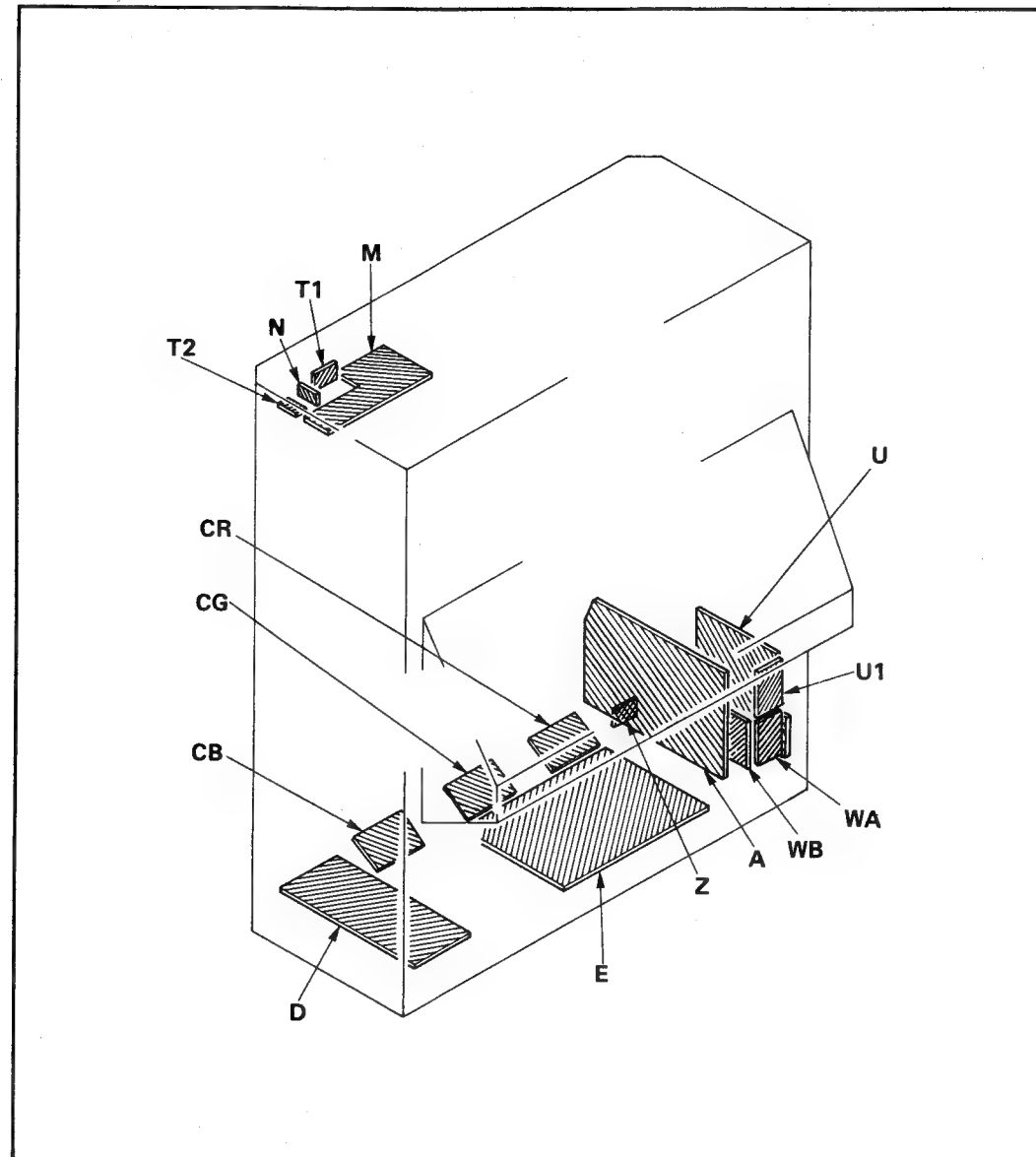
4-1. BLOCK DIAGRAM



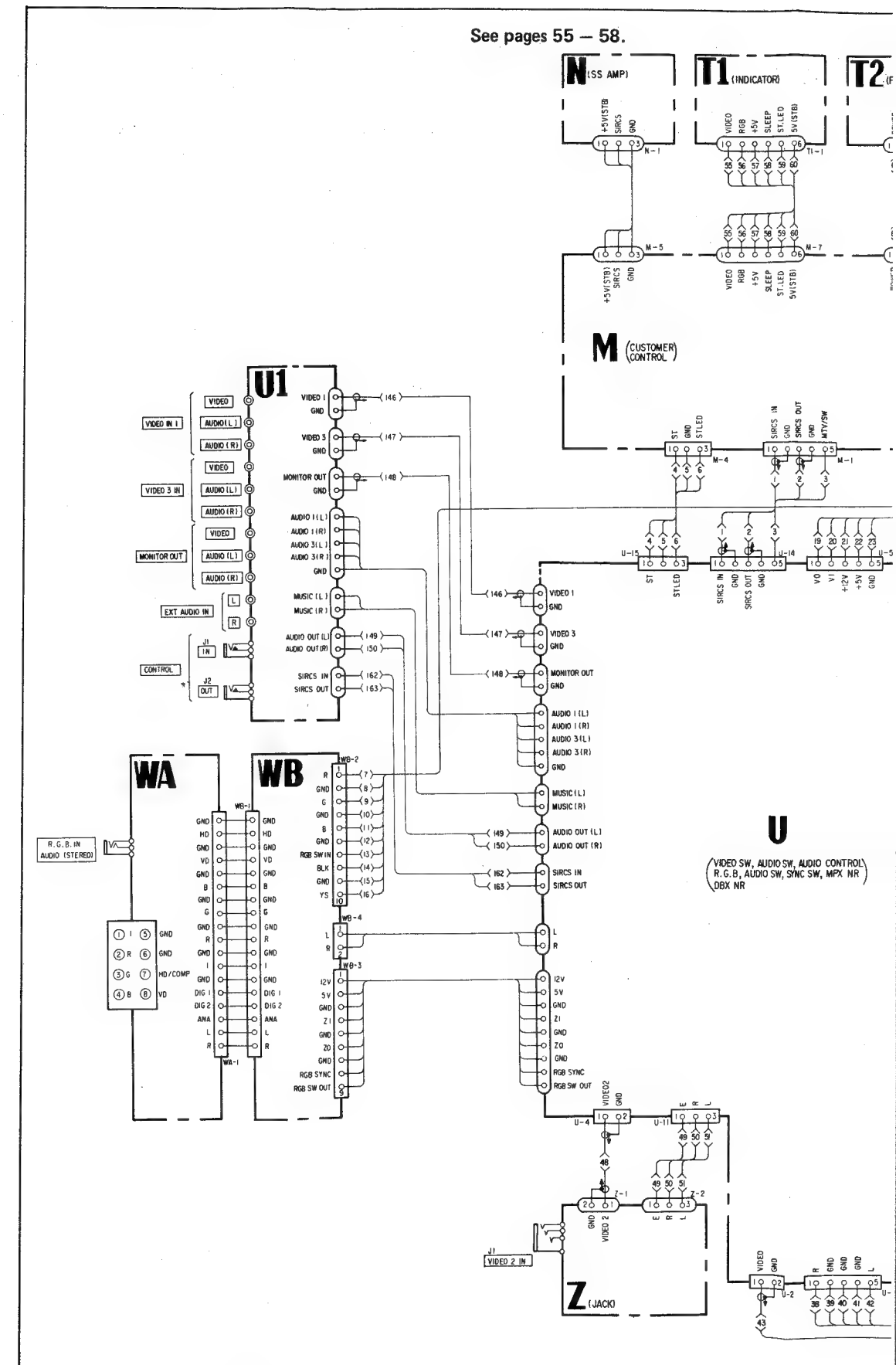




4-2. CIRCUIT BOARDS LOCATION



4-3. FLAME SCHEMATIC DIAGRAM






4.4. SCHEMATIC DIAGRAM AND PRINTED WIRING BOARDS






KPR-4620
RM-730

KPR-4620
RM-730





— Ref. No. U, U1 BOARD : 8000 series —

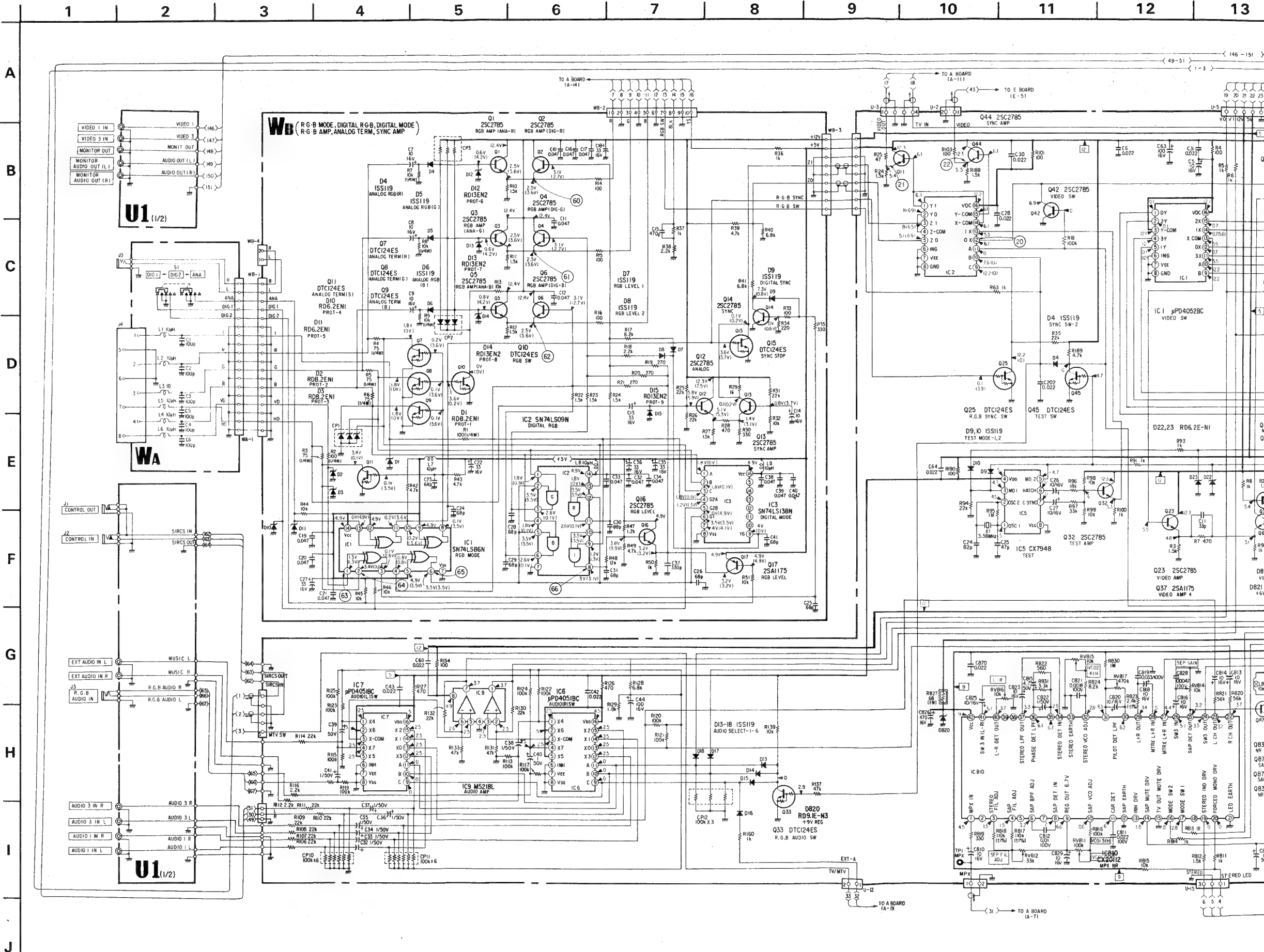
Note: The components identified by shading and mark  are critical for safety. Replace only with part number specified.

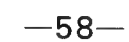
Note:

- All capacitors are in μF unless otherwise noted. pF : μF 50WV or less are not indicated except for electrolytics.
- Resistors on G board and BA board are $\frac{1}{4}\text{W}$, and those on all other board's are $\frac{1}{6}\text{W}$. $\text{k}\Omega$: 1000Ω , $\text{M}\Omega$: $1000\text{k}\Omega$
-  : nonflammable resistor.
- Δ : internal component.
-  : panel designation.
- The components identified by  in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.
- When replacing components identified by , make the necessary adjustments indicated. If results do not meet the specified value, change the component identified by  and repeat the adjustment until the specified value is achieved.
(Refer to HV HOLD DOWN and HV adjustments on page 43 — 45).
- When replacing the part in below table, be suer to perform the related adjustment.

Part replaced	Adjustment
E board complete HV block IC5001, Q5001, D5002, R5216, R5217, R5218, R5219, R5220, R5221, R5297, R5020, R5021, R5022, R5024, R5027	HV HOLD DOWN ADJUSTMENT (R5217, R5218)
E board complete Deflection yoke Switching regulator F. B. T L5004, L5005, L5010, C5037, C5038, C5039, C5058, C5059, C5060, C5064, C5119, R5066, R5096	HV ADJUSTMENT C5119

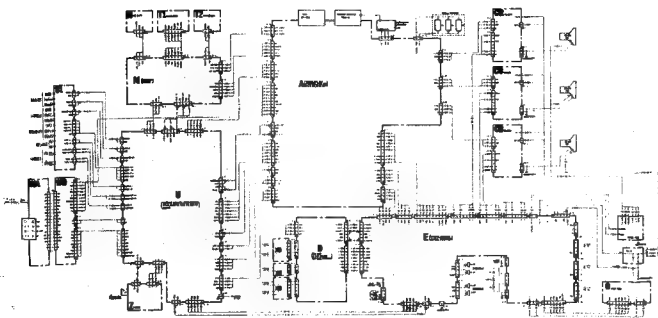
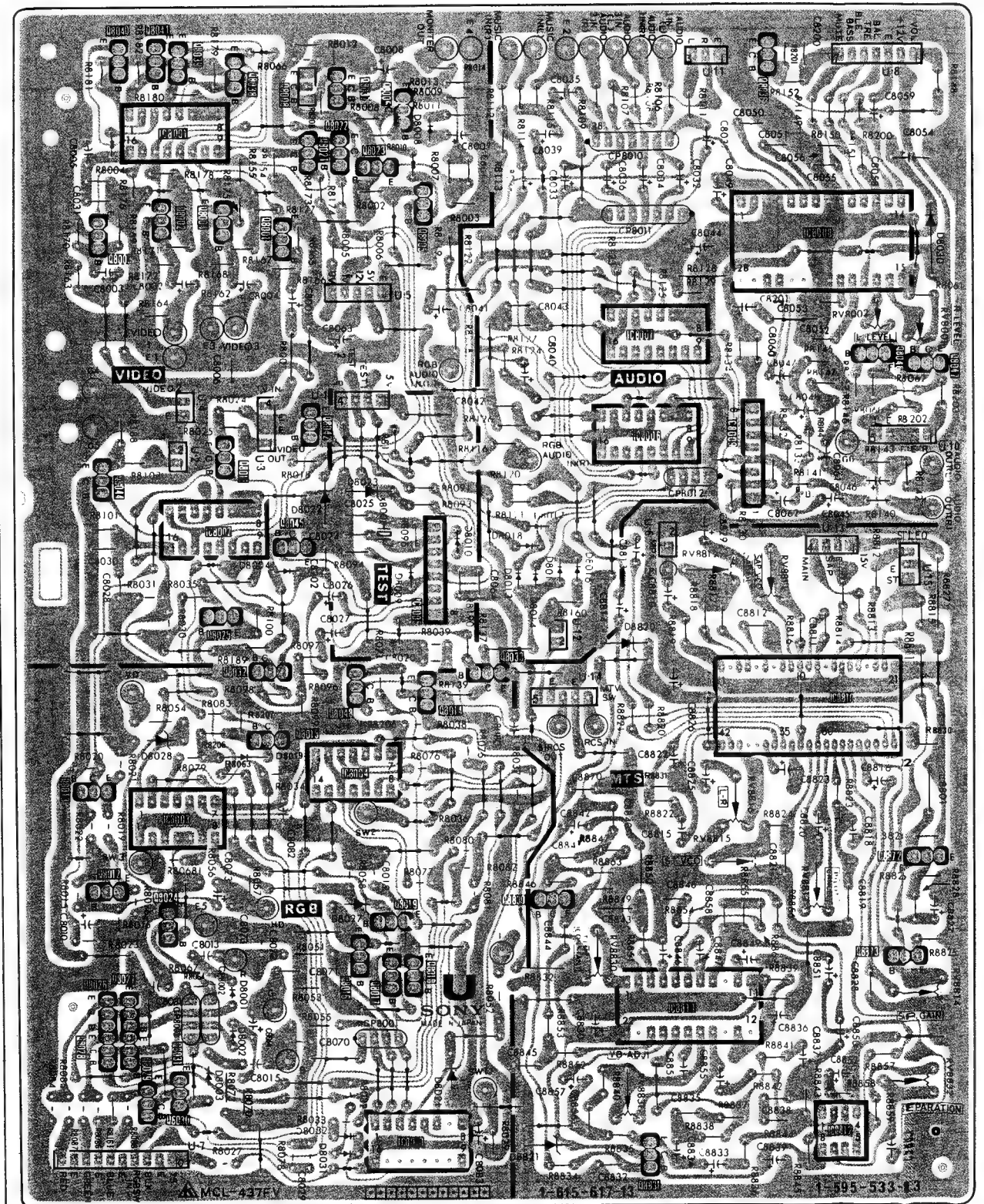
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- Voltages are dc with respect to ground unless otherwise noted.
- Readings are taken with a $10\text{M}\Omega$ digital multimeter.
-  : adjustment for repair.
- Readings are taken with a color-bar signal input.
no mark : Normal
() : Color bar video signal received
- Voltage variations may be noted due to normal production tolerances.
-  : B+ bus.
-  : B- bus.
- Circled numbers are waveform references.





U

Q, IC	D	ADJ	TP
8036 8040,8041 8039,8038 8008,8037 8006 IC8001 8021,8022 8023 8005 8002,8004 8003,8001 IC8008 IC8007 8046 8047 8042 IC8006 IC8009 8011 8044 IC8002 8045 IC8005 8025 8032,8033 IC8810 8872 8830 8073 IC8813 IC8812 8831	8008 8030 8022,8023 8017 8010,8018 8004,8009 8005,8016 8013,8014 8820 8019 8063 8821	RV8002 RV8001 RV8812 RV8811 RV8816 RV8815 RV8817 RV8830 RV8814 RV8832 RV8831	



KPR-4620
RM-730

KPR-4620
RM-730

U1

R-G-B MODE, DIGITAL R-G-B, DIGITAL MODE
R-G-B AMP, ANALOG TERM, SYNC AMP

WB

WA

WB

M

CUSTOMER
CONTROL

T1

INDICATOR

T2

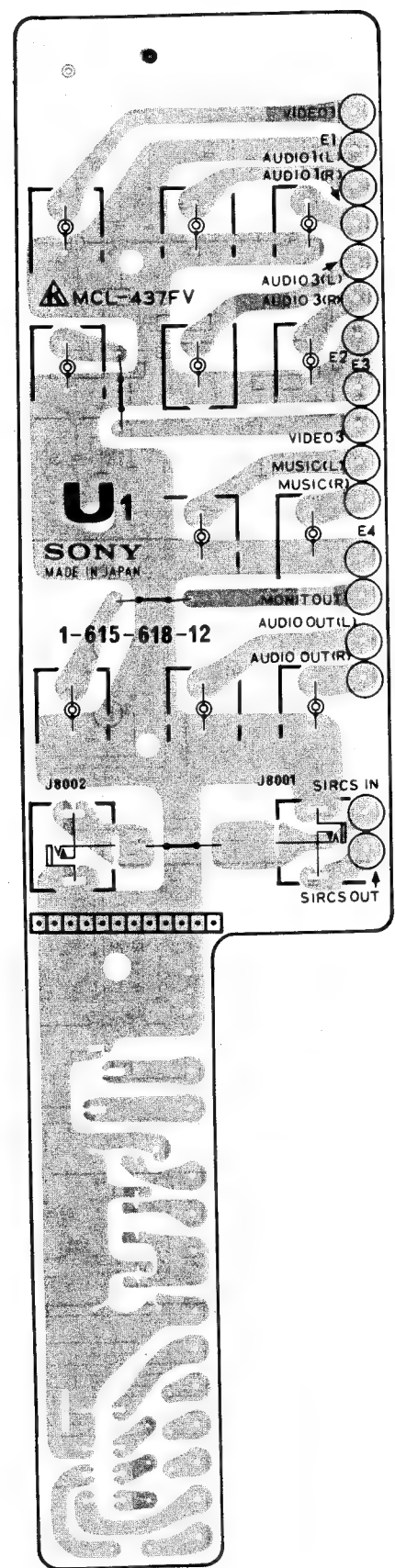
POWER SWITCH

Z

JACK

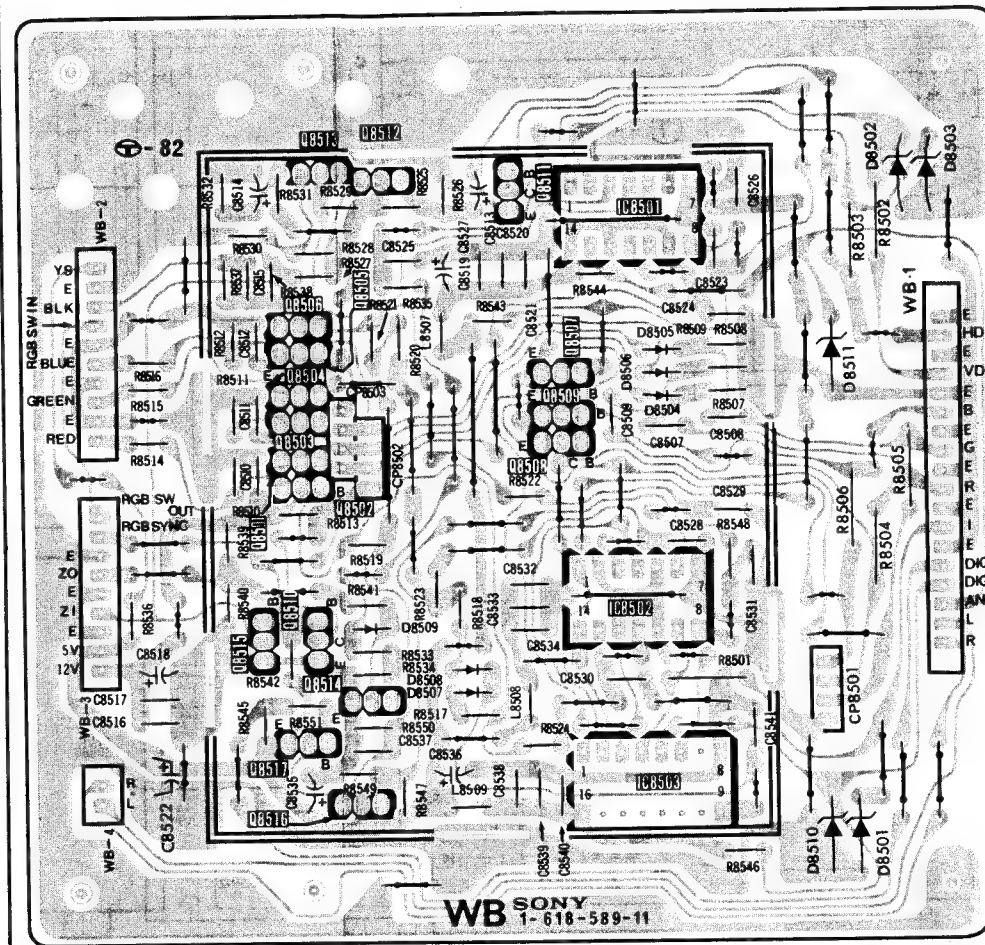
0 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26

— U1 Board —

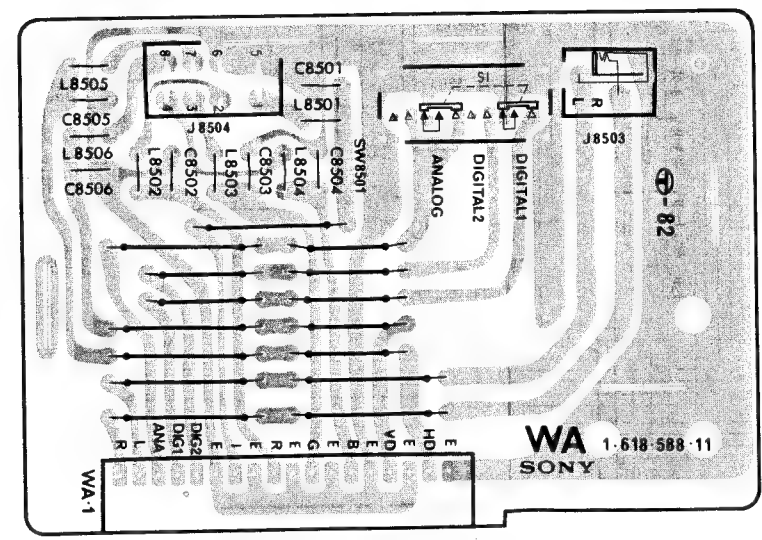


— WB Board —

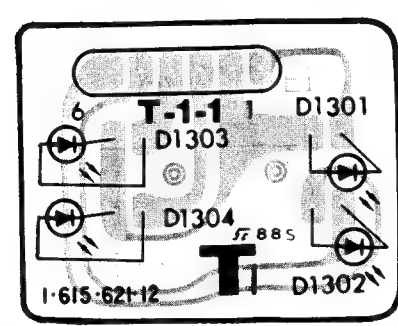
Q, IC	D
8513 8512 8511 IC8501	8502 8503
8506 8505 8507 8504 8509 8503 8508 8501 8502	8505 8511 8506 8504
IC8502	8509 8508 8507
8515 8510 8514 8517	
IC8503 8516	8510 8501
Q, IC	D



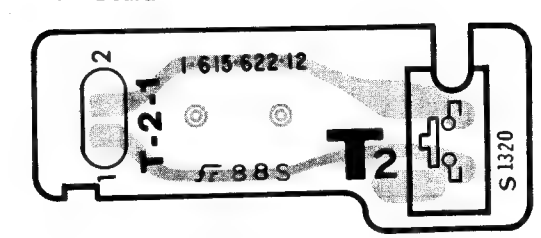
— WA Board —



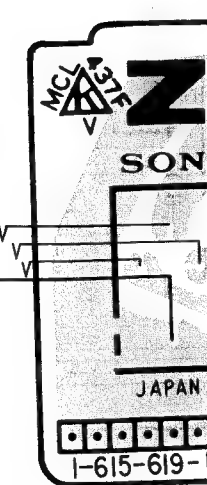
— T1 Board —



— T2 Board —



— Z Board —



R-G-B MODE, DIGITAL R-G-B, DIGITAL MODE
R-G-B AMP, ANALOG TERM, SYNC AMP

WB

WA

WB

M

CUSTOMER
CONTROL

T1

[INDICATOR]

T2

[POWER SWITCH]

Z

[JACK]

N

[INF AMP]

16

17

18

19

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23

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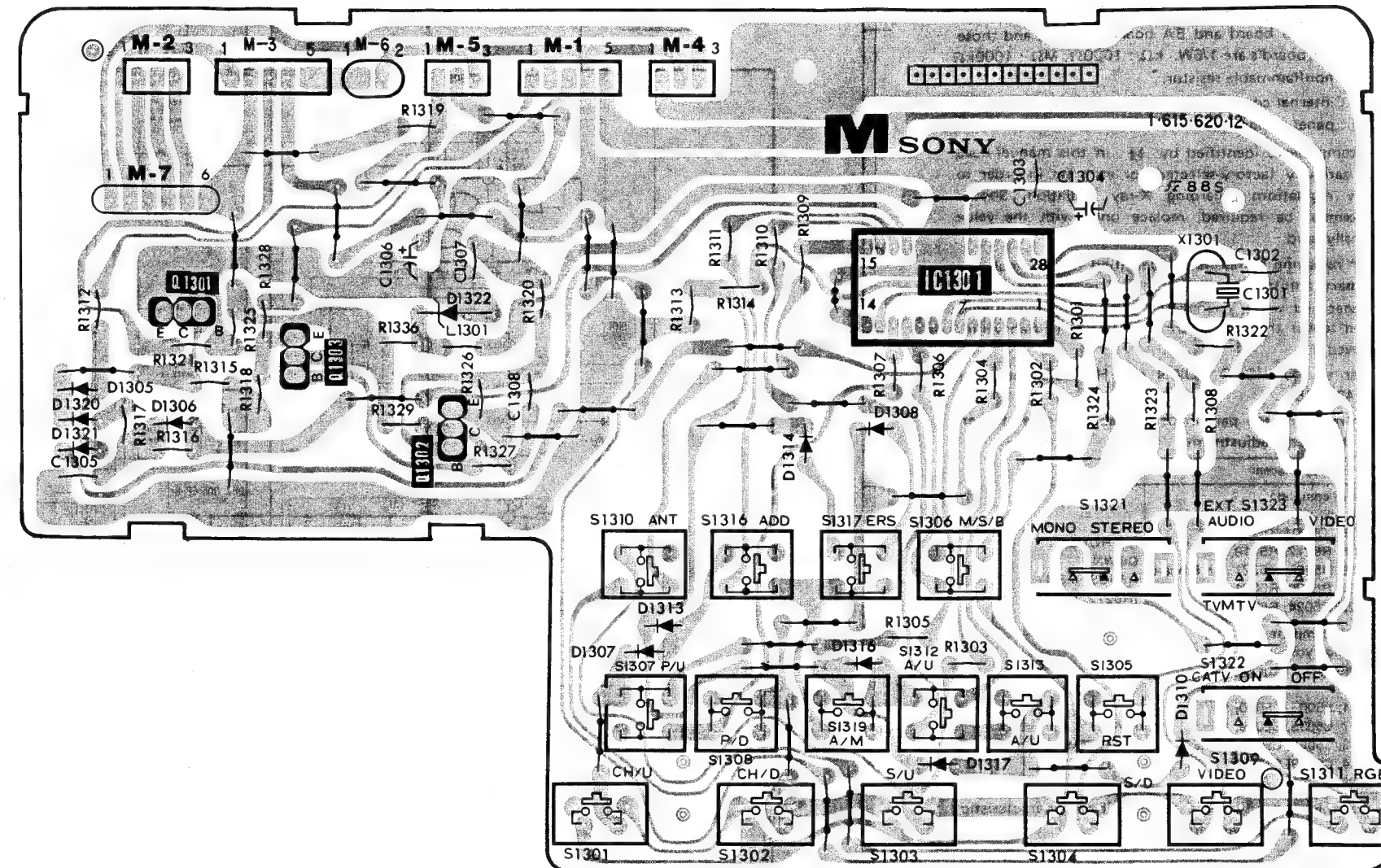
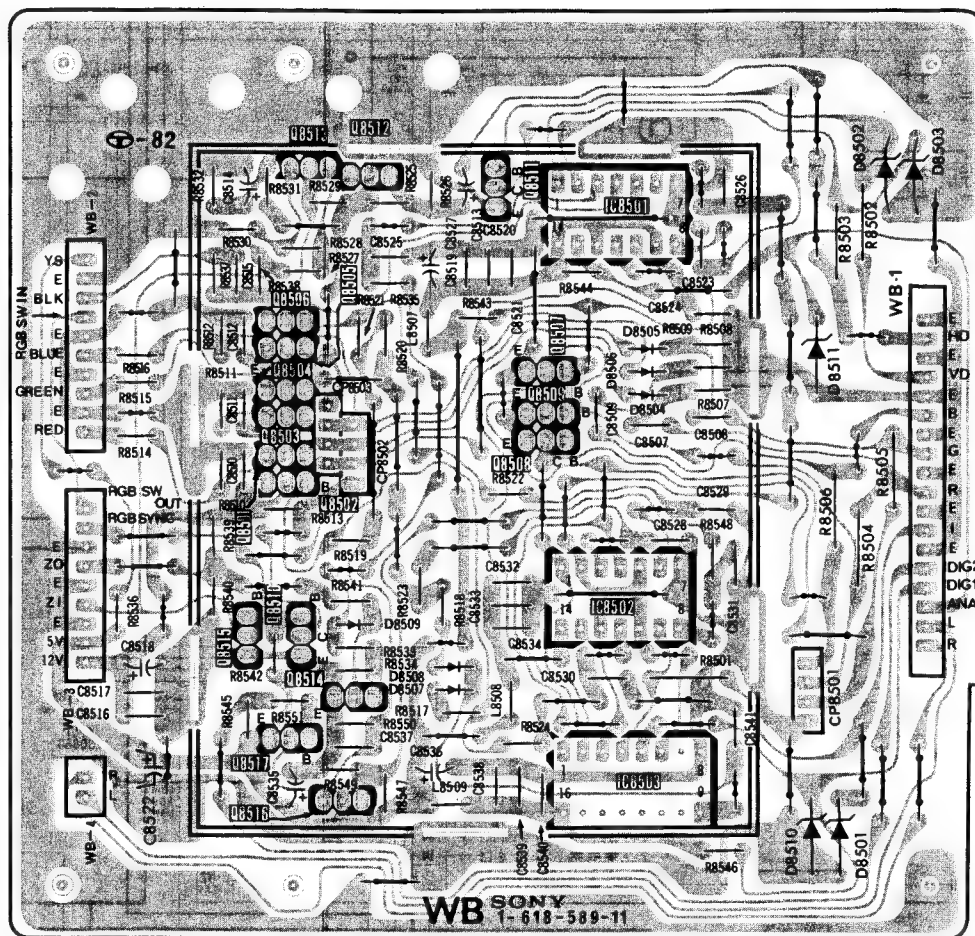
30

31

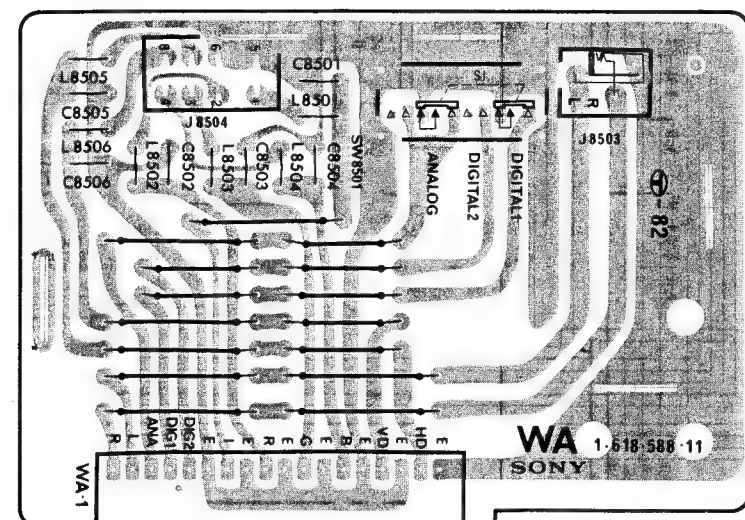
— WB Board —

— M Board —

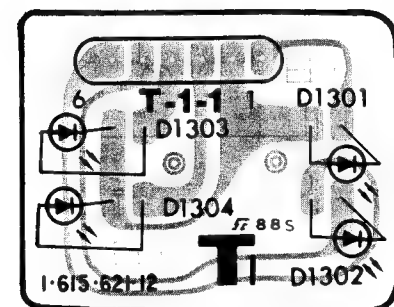
Q, IC	D
8513 8512 8511 IC8501	8502 8503
8506 8505 8507	8505 8511 8506 8504
8504 8503 8508 8501 8502	
IC8502	
8515 8510 8514 8517	8509 8508 8507
IC8503 8516	
8510 8501	
Q, IC	D



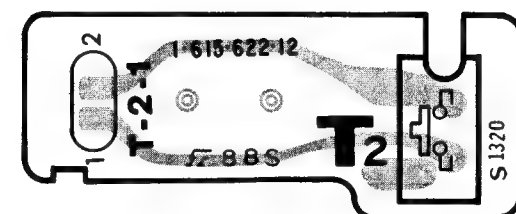
— WA Board —



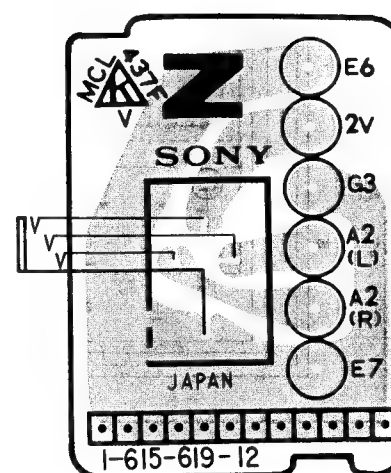
— T1 Board —



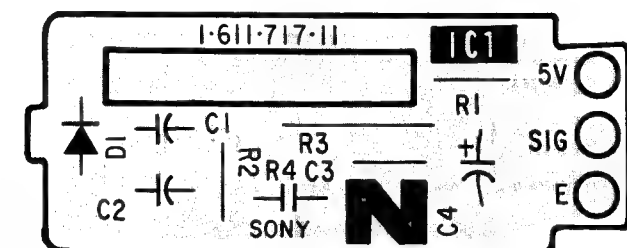
— T2 Board —




— Z Board —







— N Board —





Note: The components identified by shading and mark  are critical for safety. Replace only with part number specified.

Note:

- All capacitors are in μF unless otherwise noted. pF : μF 50WV or less are not indicated except for electrolytics.
- Resistors on G board and BA board are $\frac{1}{4}W$, and those on all other board's are $\frac{1}{6}W$. k Ω : 1000 Ω , M Ω : 1000k Ω
-  : nonflammable resistor.
-  : internal component.
-  : panel designation.




- The components identified by  in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.

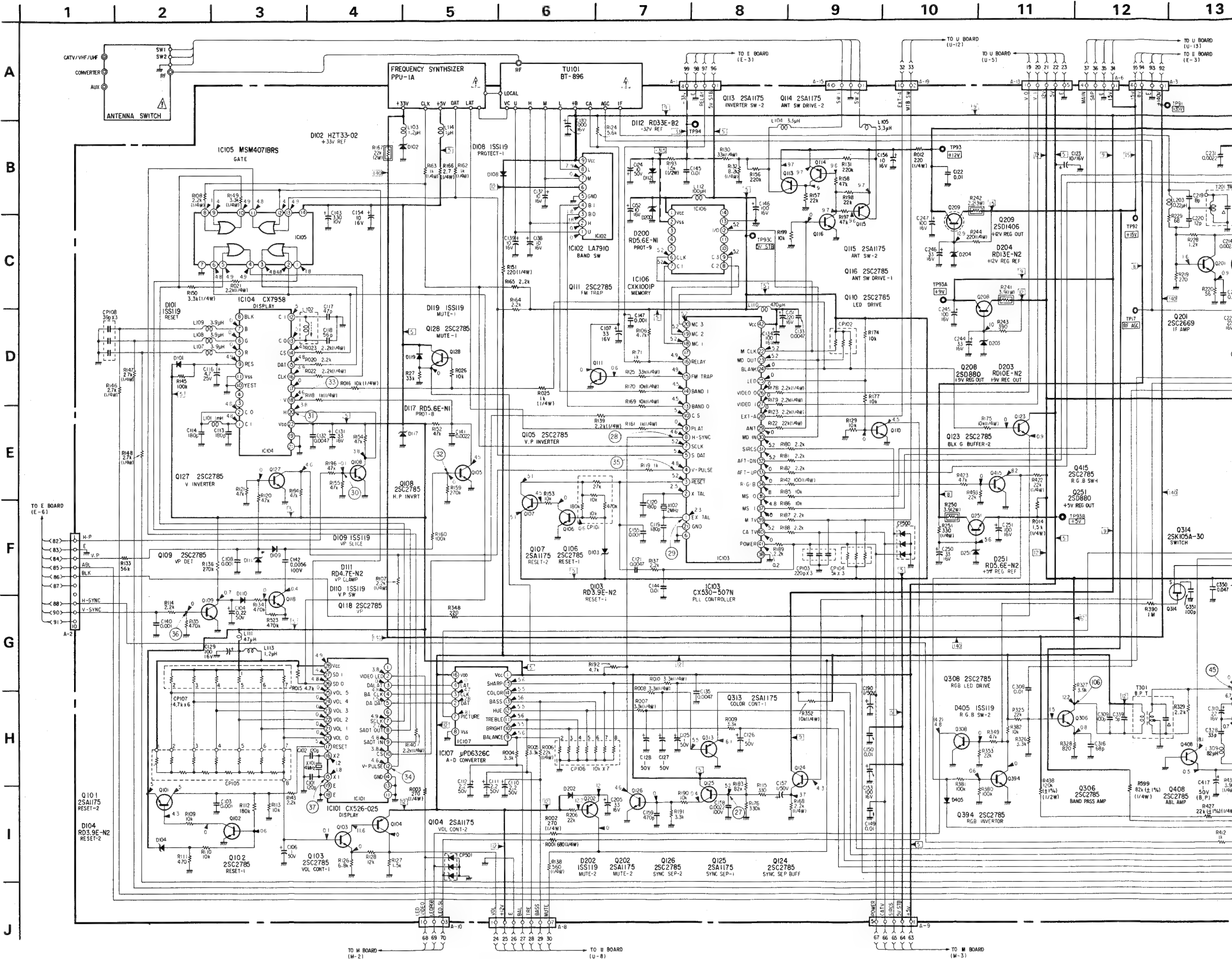
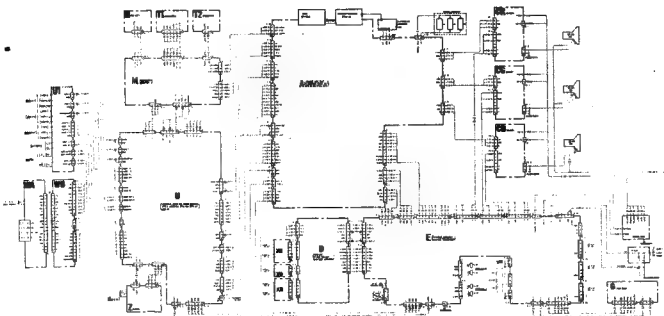
- When replacing components identified by  , make the necessary adjustments indicated. If results do not meet the specified value, change the component identified by  and repeat the adjustment until the specified value is achieved.

(Refer to HV HOLD DOWN and HV adjustments on page 43 - 45).

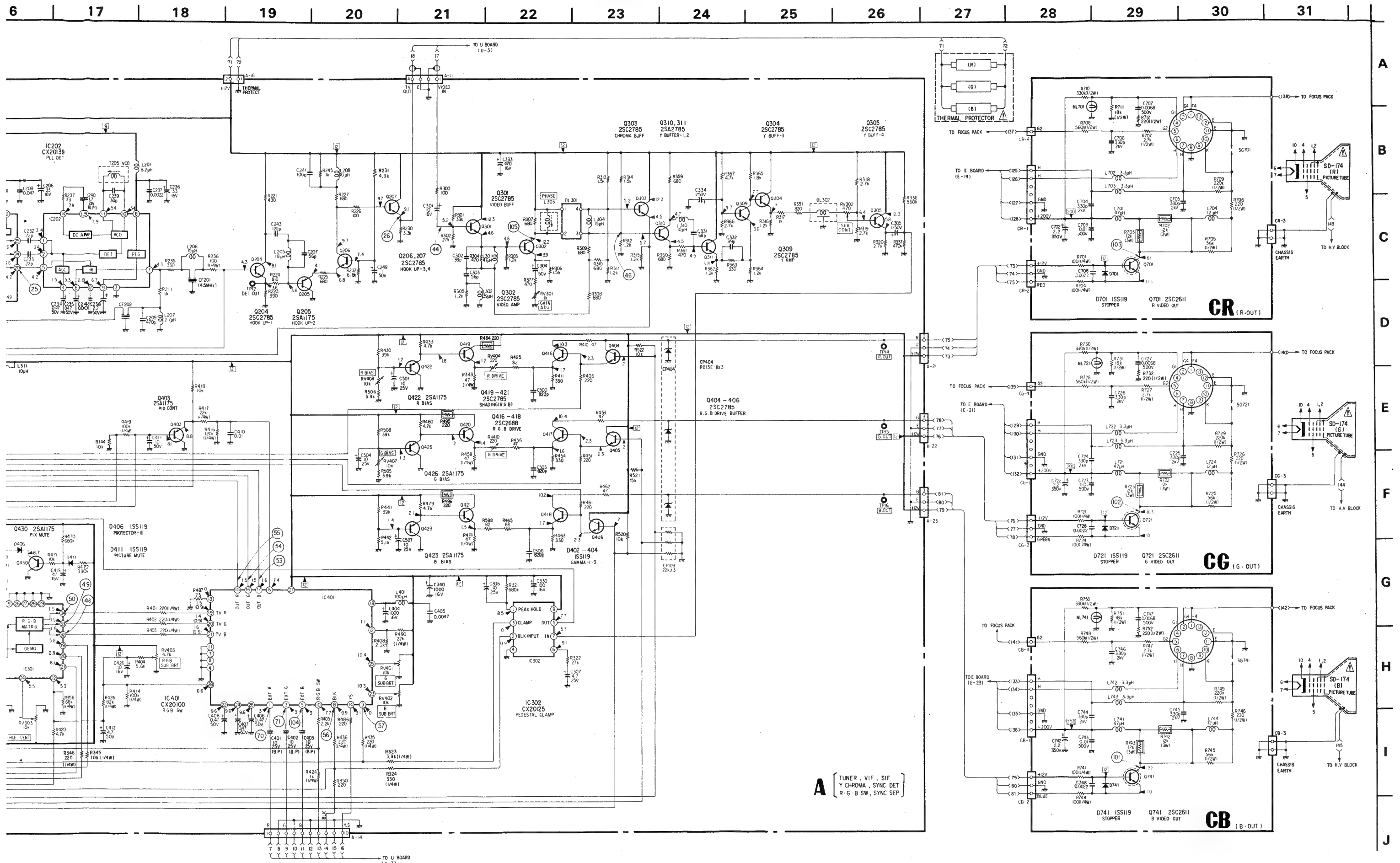
- When replacing the part in below table, be sure to perform the related adjustment.

Part replaced	Adjustment
E board complete HV block IC5001, Q5001, D5002, R5216, R5217, R5218, R5219, R5220, R5221, R5297, R5020, R5021, R5022, R5024, R5027	HV HOLD DOWN ADJUSTMENT (R5217, R5218)
E board complete Deflection yoke Switching regulator F. B. T L5004, L5005, L5010, C5037, C5038, C5039, C5058, C5059, C5060, C5064, C5119, R5066, R5096	HV ADJUSTMENT C5119

- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- Voltages are dc with respect to ground unless otherwise noted.
- Readings are taken with a 10M Ω digital multimeter.
-  : adjustment for repair.
- Readings are taken with a color-bar signal input.
no mark : Normal
() : Color bar video signal received
- Voltage variations may be noted due to normal production tolerances.
-  : B+ bus.
-  : B- bus.
- Circled numbers are waveform references.







A

TUNER, VIF, SIF
Y CHROMA, SYNC DET
R.G.B SW, SYNC SEP

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

A

B

C

D

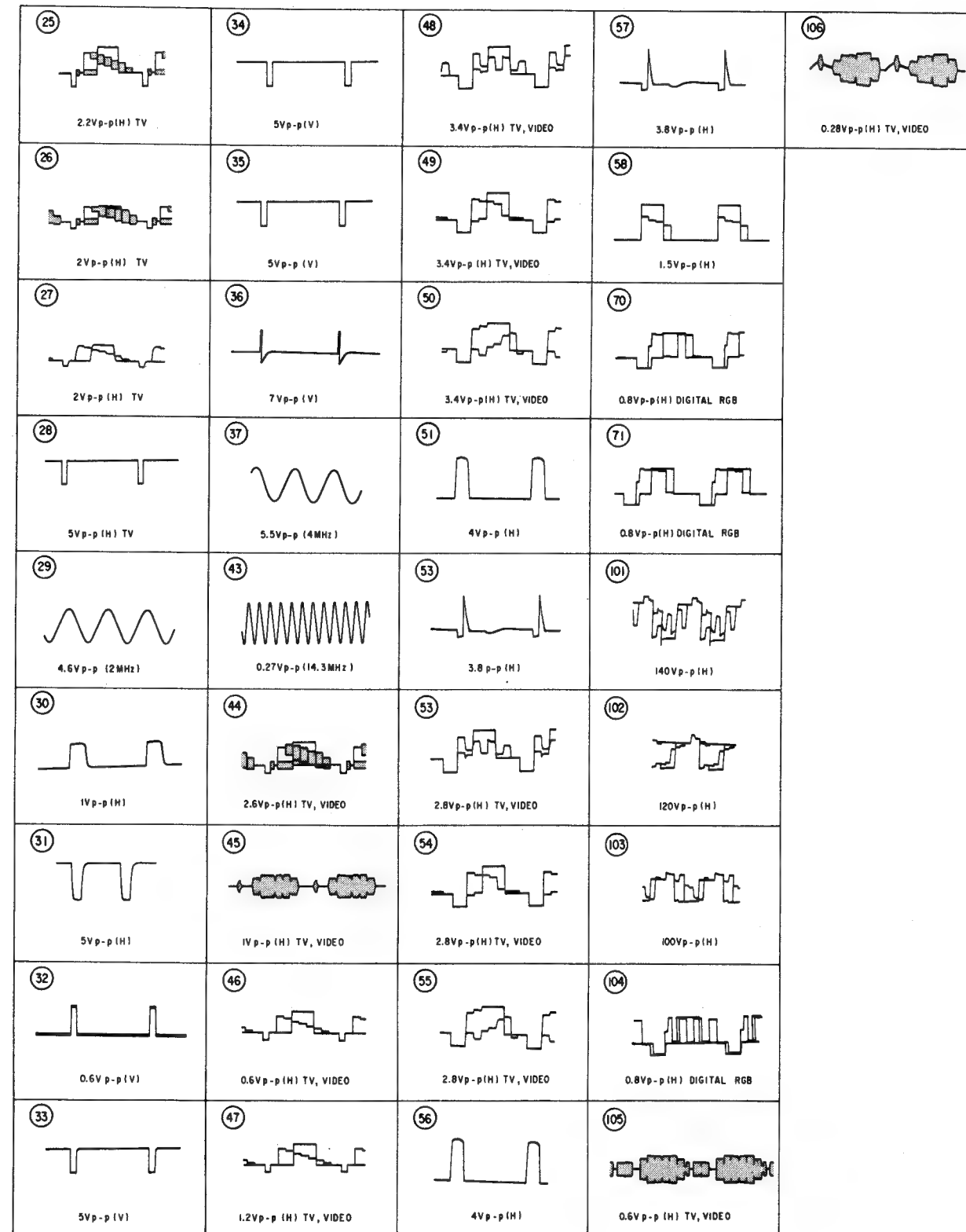
E

F

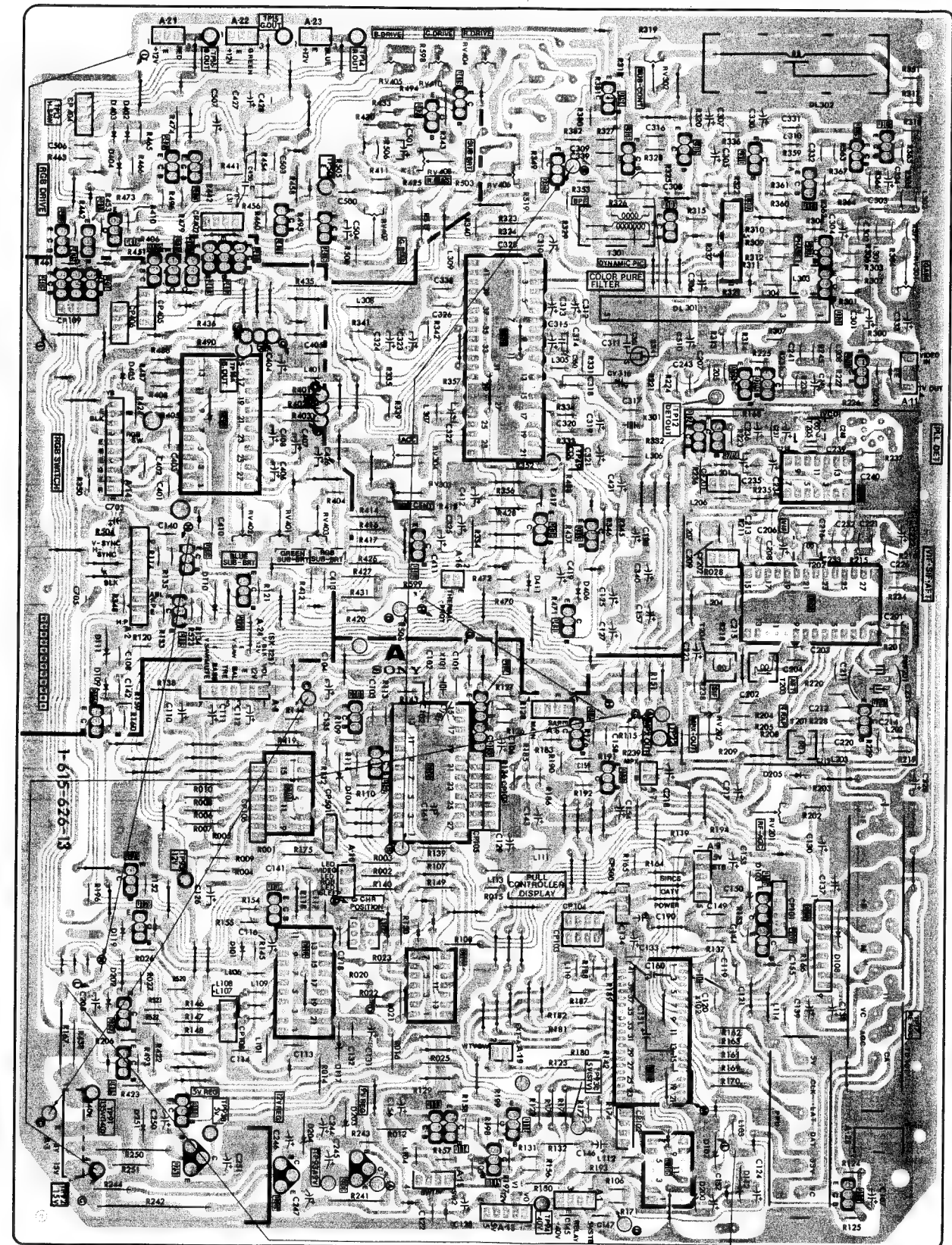
G

H

I



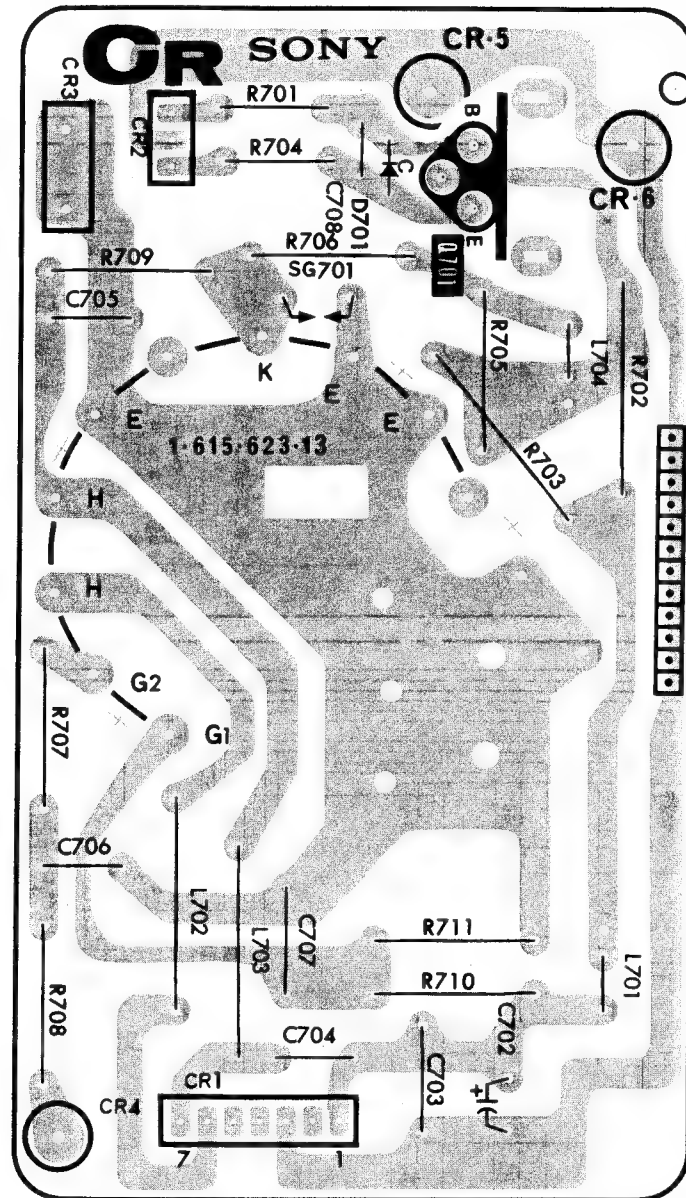
- A Board -



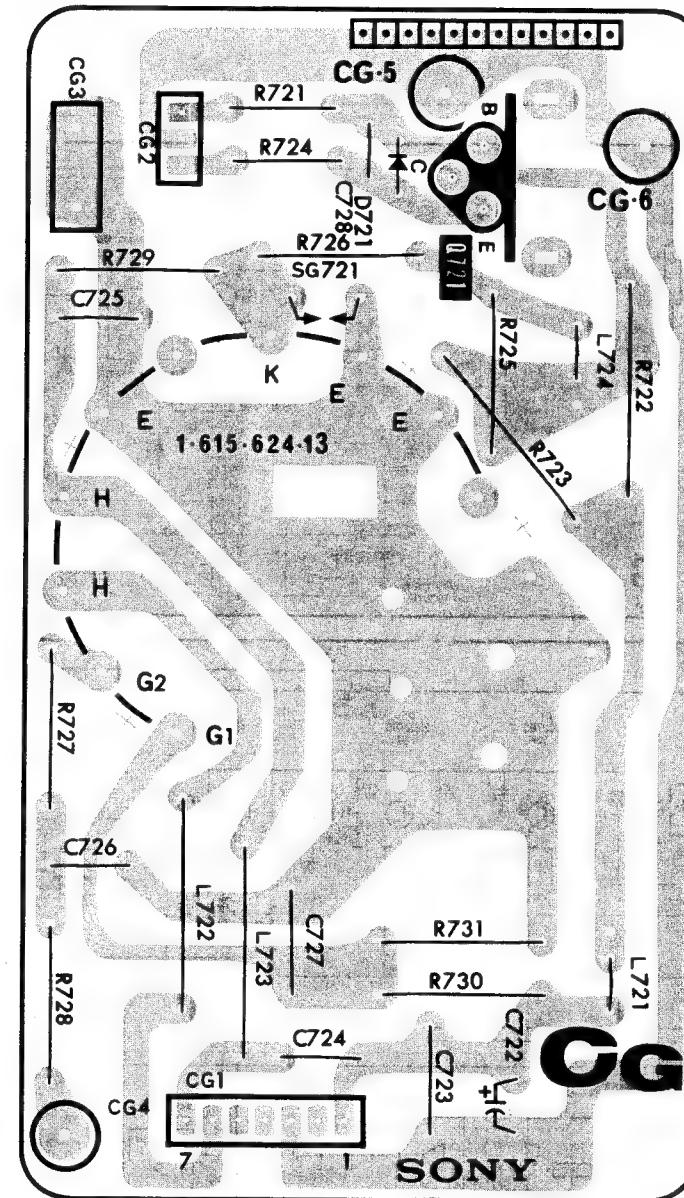
IC, Q	D	AD
410 394 422		RV41 RV44 RV53
305 304 422	403 402	
306 310 309 421 423 311	404	RV4C
420 426 303 416 IC302 417 412 418 411 302 413 120 119 012 406, 405, 404		RV4C RV3C
IC301 314 207 206 206	405	
IC401 124 204		RV30
IC202		RV301
408 313 403 109		RV402 RV403 402
127 IC201 118 430	110	
	111	
104 101 105 103	109	RV202
IC101 102 107	104 205	RV201
123 108 106 IC102 128 107 101	103 108	
IC104 IC105 202 IC103	202 117	
415		
110 113 114 116 251 IC106 209 111	203 204 102 112	

T	D	ADJ	T
			TF5
394		RV410 RV404 RV302	TF4
304	403		TF3
309			
	404	RV406	TF0
311			
3		RV407	
302			
302			
012			
301		RV301	
404			
314			
507	405		TP16A
206			
			TP2
204			
		RV304	TP9
02			
		RV303	
313		RV402 RV401 403	
		411 406	
101	110		
30			
	111		
109			
101		RV202	
13			TP22
12			
26	104	205	
7		RV201	
			TP93
		103	
102			
17	119	108	
	101		
4			
5			
	202		
5		117	TP17
			TP93C
116	251	203	TP93B TP91
		204	
115		102	
208			TP93A
11		112	
			TP92
			TP94
1	D	ADJ	TP

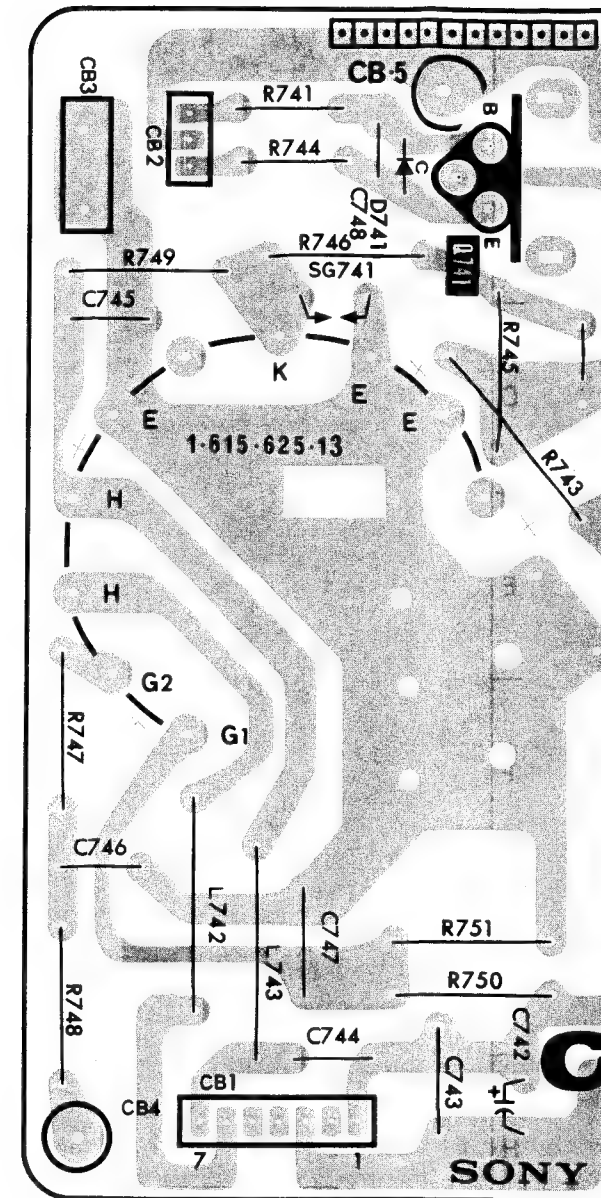
— C R Board —



– CG Board –



— CB Board —



A

[R. OUT]

CR

CR

CG

[G. OUT]

CB

[B. OUT]

20

21

22

23

24

25

26

27

28

29

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31

32

33

34

A

B

C

D

E

F

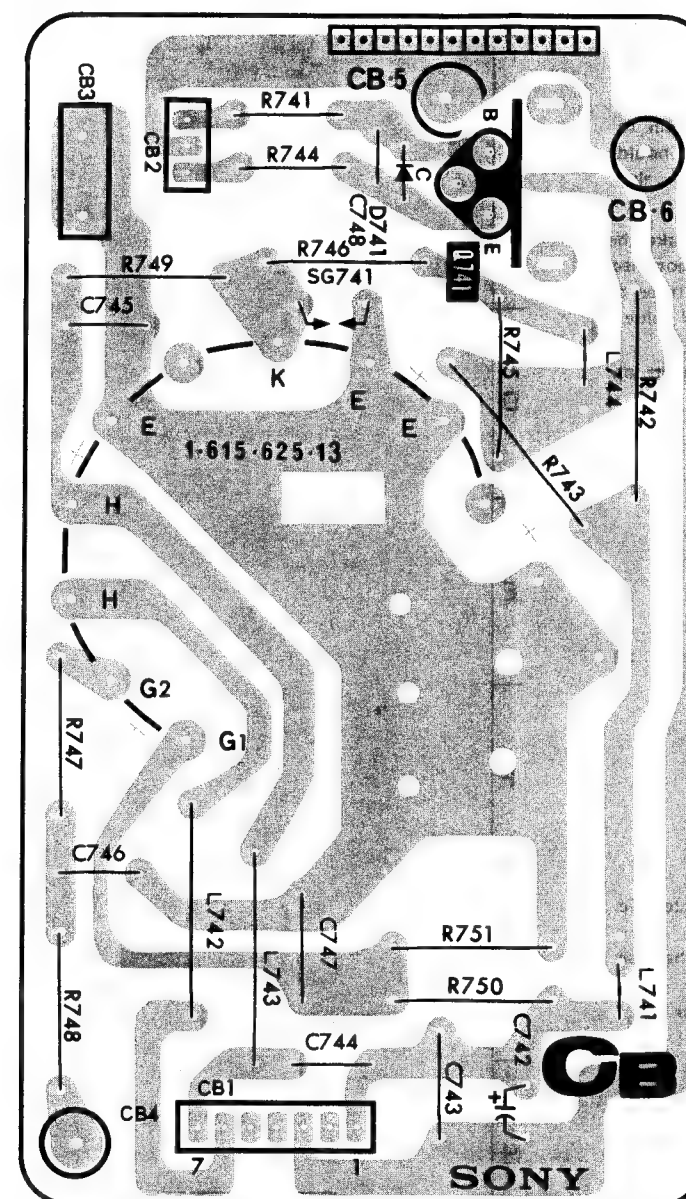
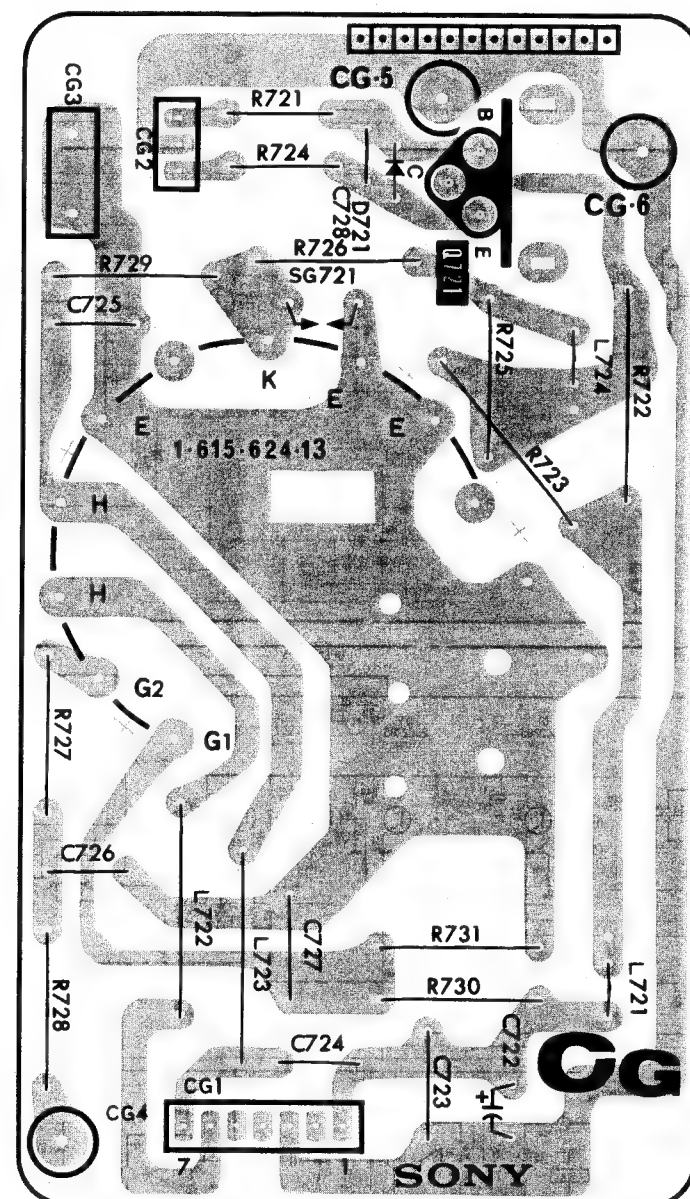
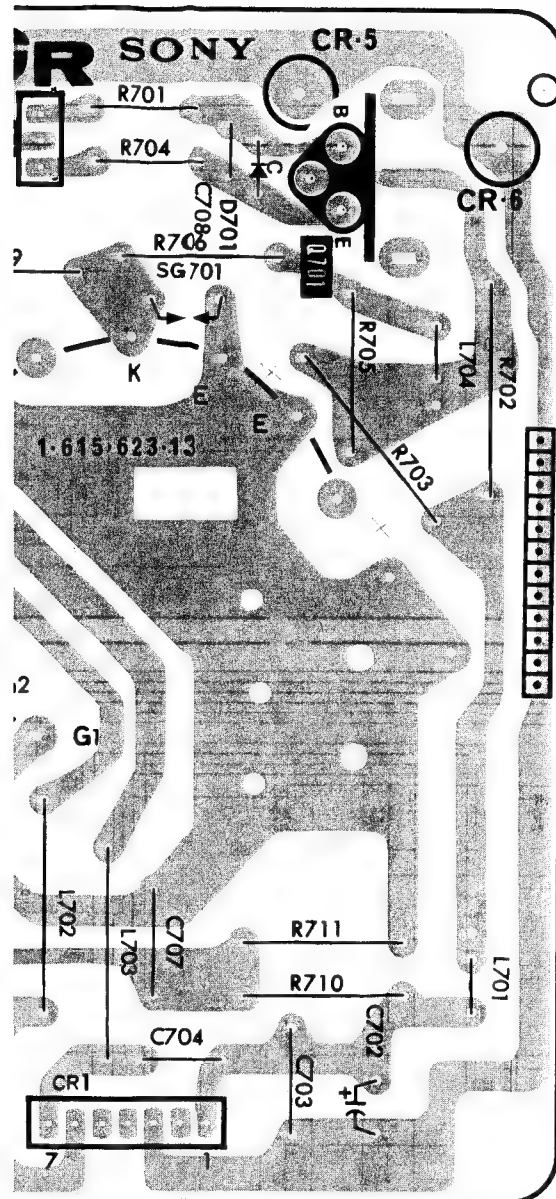
G

H

1

— CG Board —

— CB Board —



A


- All capacitors are in μF unless otherwise noted. pF : μF
50WV or less are not indicated except for electrolytics.



- Resistors on G board and BA board are $\frac{1}{4}W$, and those on all other board's are $\frac{1}{6}W$. $k\Omega : 1000\Omega$, $M\Omega : 1000k\Omega$

-  : nonflammable resistor.

- Δ : internal component.

- : panel designation.

- The components identified by  in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.

- When replacing components identified by , make the necessary adjustments indicated. If results do not meet the specified value, change the component identified by  and repeat the adjustment until the specified value is achieved.

(Refer to HV HOLD DOWN and HV adjustments on page 43 - 45).

- When replacing the part in below table, be suer to perform the related adjustment.

Part replaced	Adjustment
E board complete HV block IC5001, Q5001, D5002, R5216, R5217, R5218, R5219, R5220, R5221, R5297, R5020, R5021, R5022, R5024, R5027	HV HOLD DOWN ADJUSTMENT (R5217, R5218)
E board complete Deflection yoke Switching regulator F. B. T L5004, L5005, L5010, C5037, C5038, C5039, C5058, C5059, C5060, C5064, C5119, R5066, R5096	HV ADJUSTMENT C5119

- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.


- Voltages are dc with respect to ground unless otherwise noted.

- Readings are taken with a $10\text{M}\Omega$ digital multimeter.

- : adjustment for repair.

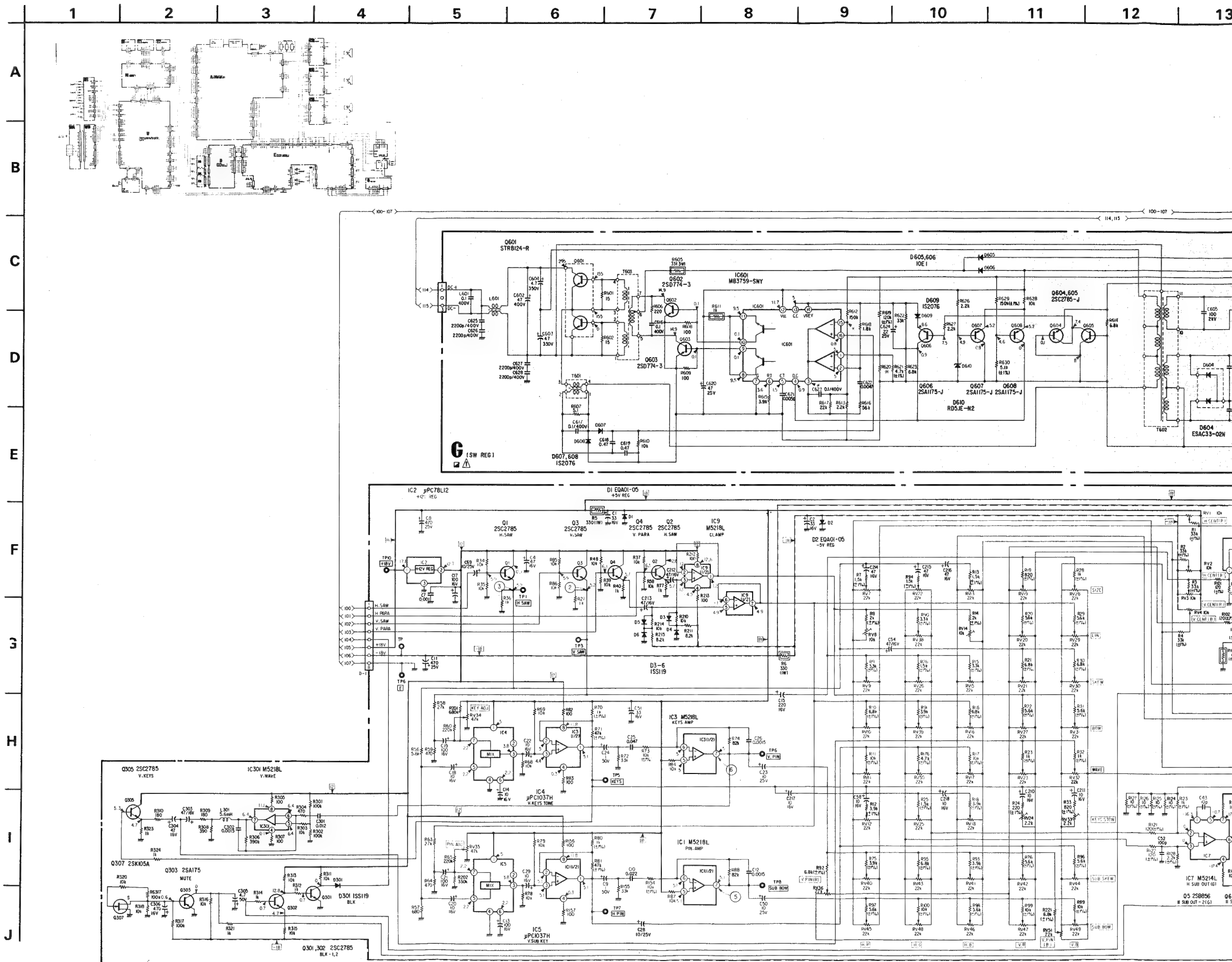
- Readings are taken with a color-bar signal input.
no mark : Normal
() : Color bar video signal received

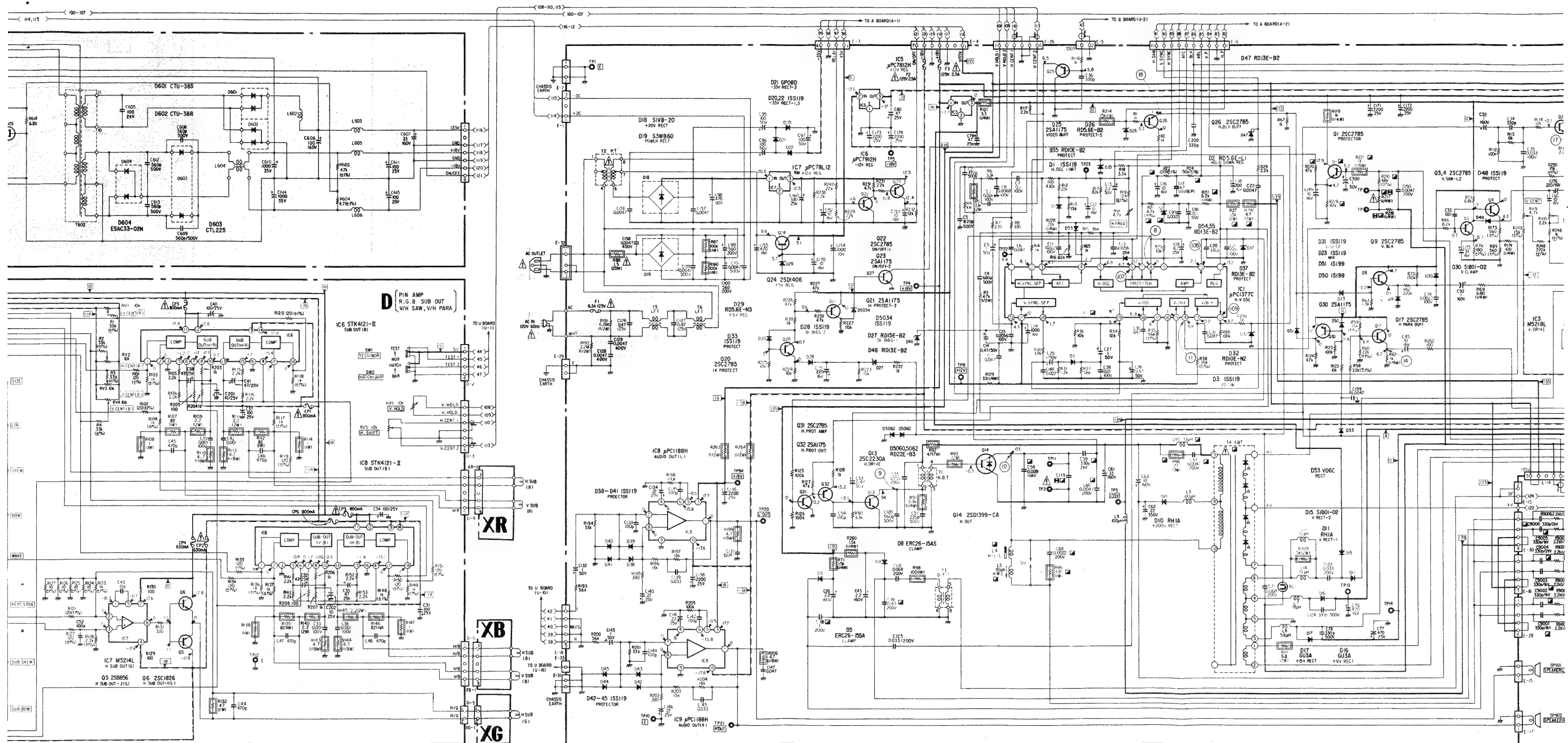
- Voltage variations may be noted due to normal production tolerances.

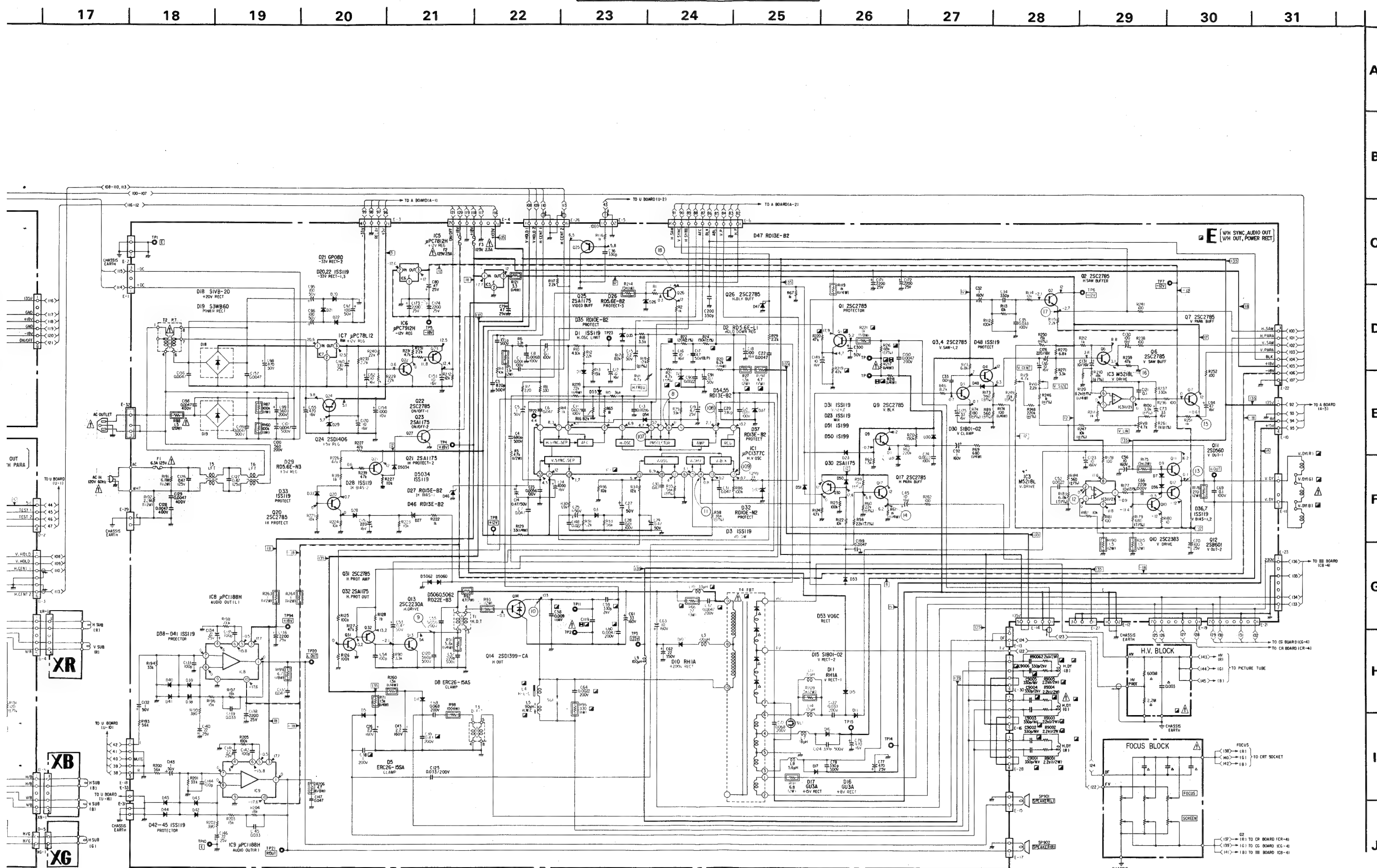
-  : B+ bus.

- : B- bus.

- Circled numbers are waveform references.







[V/H SYNC AUDIO OUT]
[V/H OUT POWER RECT]

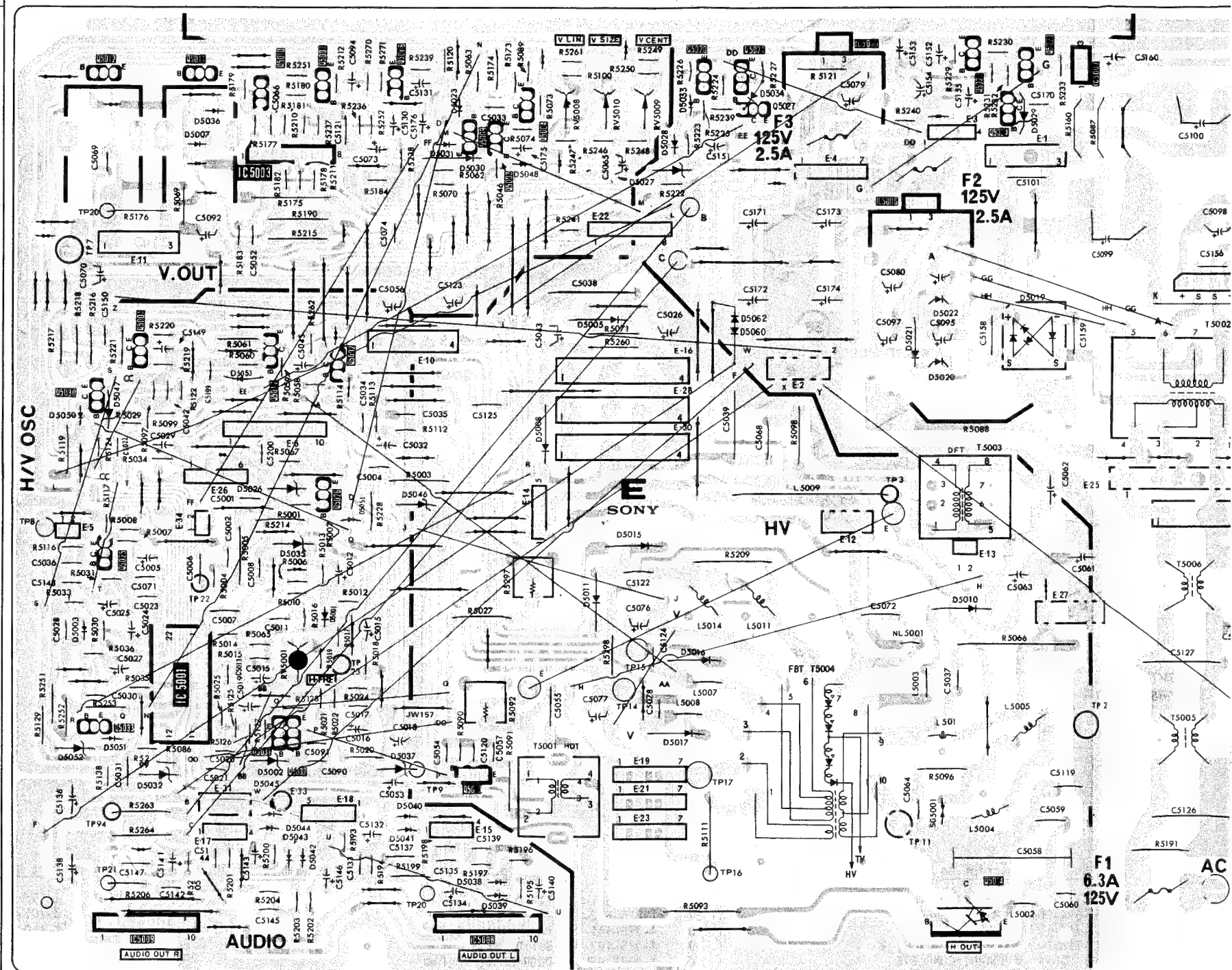
E

E

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

- E Board -

Q, IC	D	ADJ	TP
IC5005 5022			
5003			
IC5007			
5020	5034		
5012 5021	5029		
5015 5006	RV5003		
5007	5009		
5008	RV5003		
5010	5023		
5004	5036 5028		
5005	5029		
IC5003	5007 5031		
5009	5030		
IC5003	5027		
IC5006			20
			7
	5018		
	5022		
	5062		
	5060		
5001	5019		
5017	5021		
5002	5020		
	5053		
5030			
	5047		
	5050		
	5008		
	5026		
	5046		
	5051		
5025	5035		
	5011		22
	5001 5010		
5003			
	5016		15
IC5001			23
			14
	5017		
5031	5051		2
5032	5052		
	5002		
	5037		
5013	5032		9
	5045		
	5040		
	5044		
	5041		
	5043, 5042		
	5038		16
	5039		21
5014			20
IC5009			
IC5008			
Q, IC	D	ADJ	T



E

[P/NAMP
R - G, B SUB OUT
V/H SAW, V/H PARABORA]

D

XR

XG

D

XB

G

[SW REG] ☐

20

21

22

23

24

25

26

27

28

29

30

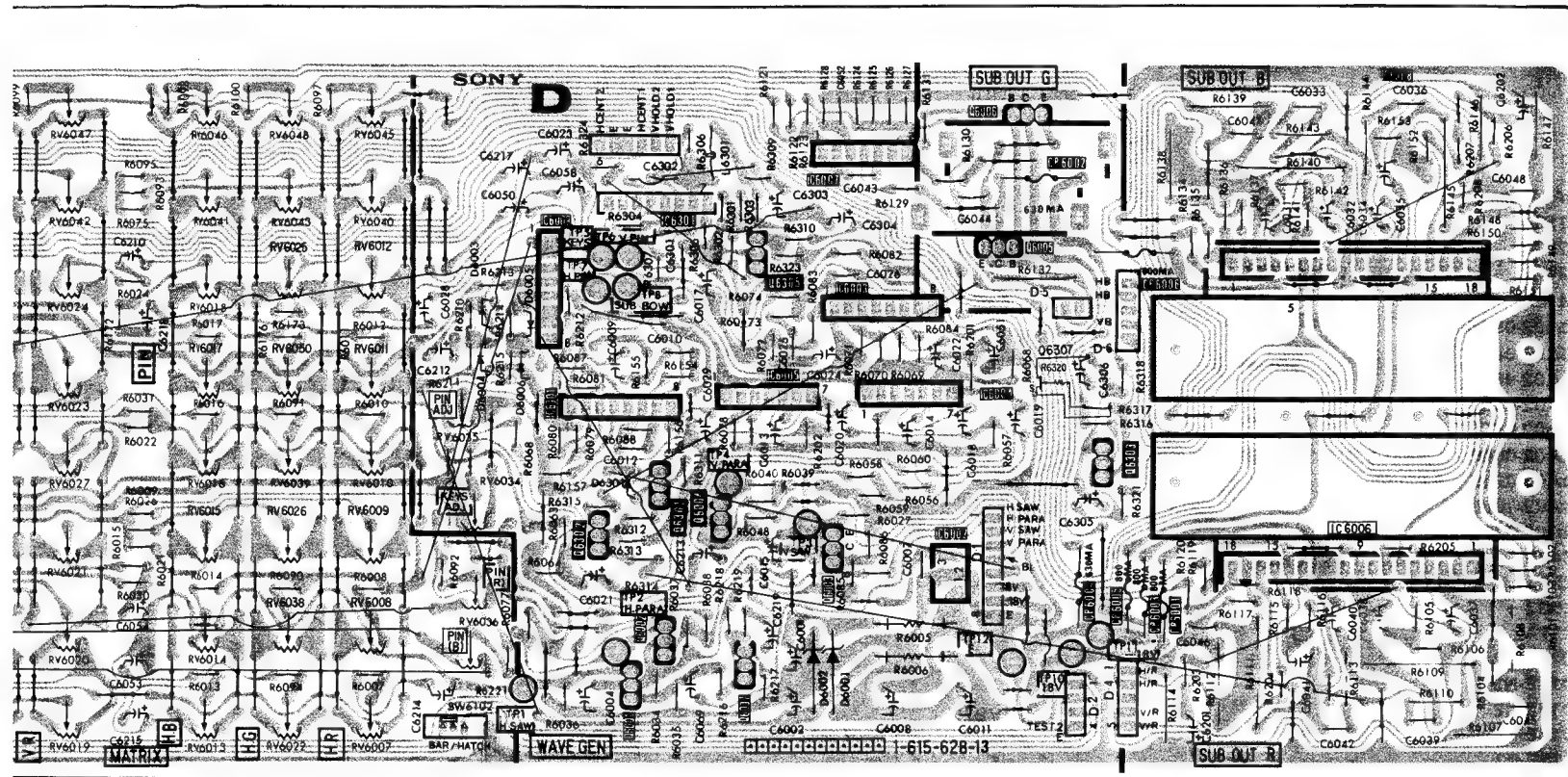
31

32

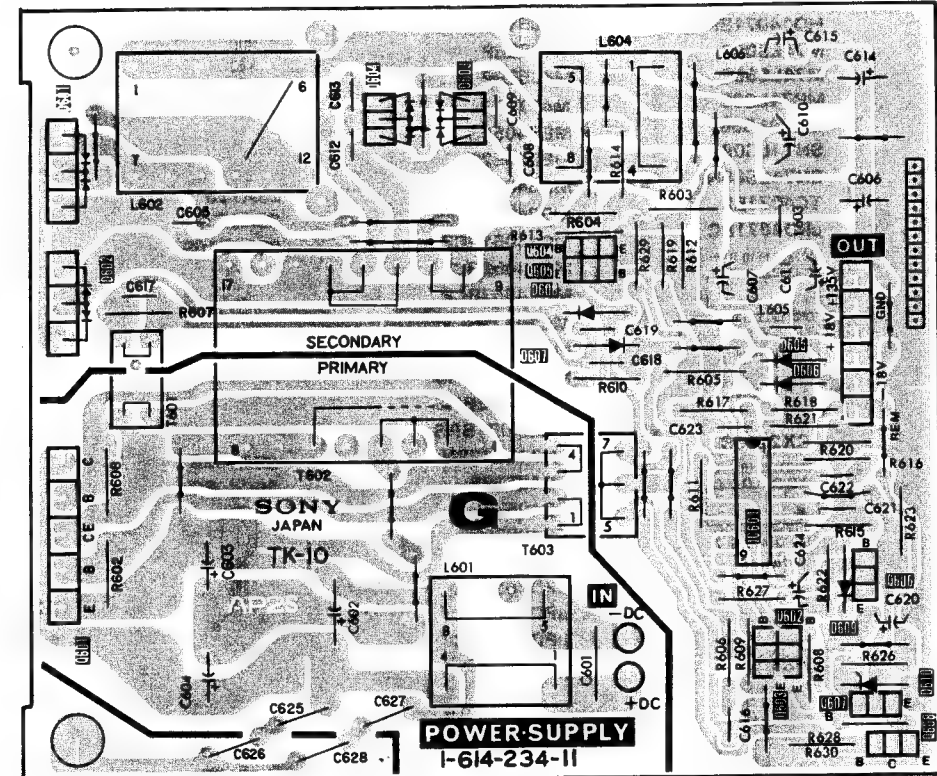
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34

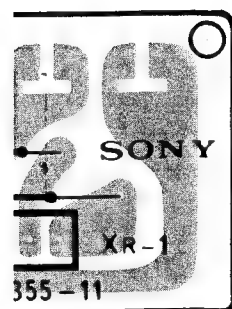
35

[illegible]

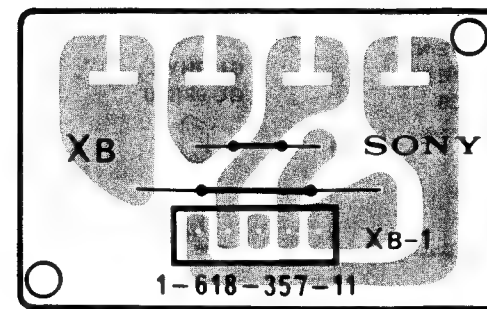
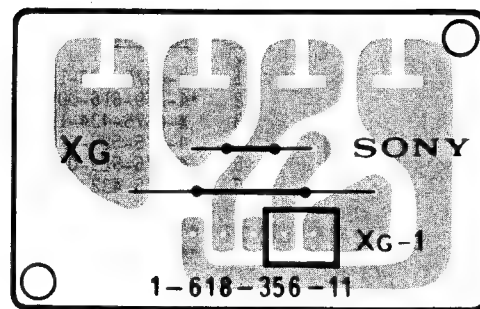
— G Board —



— X G Board —

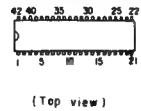


— XB Board —

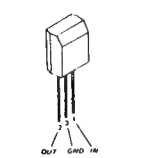


4-5. SEMICONDUCTORS

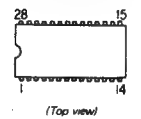
AN6291
CX848
CX20112



AN78L12
NJM78L12A
TA78L012AP
μPC78L12



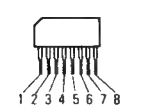
CX526-025
CX10026
CX20014A
CX20100



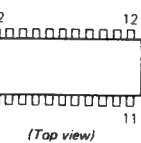
CX530-507N



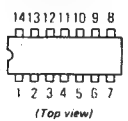
CX7948
CX20106
CX20106A
CX20125
M5218L



CX7958
μPC1377C



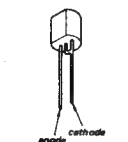
CXK1001P
HD74LS09P
HD74LS86P
HD14071BP
M74LS09P
M74LS86P
MB74LS09
MB74LS86
SN74LS09N
SN74LS86N
TC4071BP
μPD4071BC



CX20139



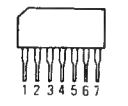
HZT33-02



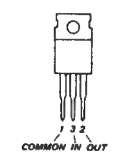
LA7910



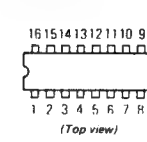
M5214L
μPC1037H



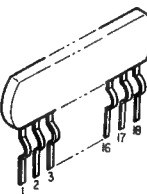
μPC7912H



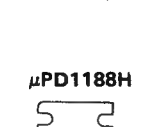
HD14051BP
HD14052BP
HD14053BP
M4051BP
M4052BP
M4053BP
M4071BP
MB84051B
MB84052B
MB84053B
MB84071B
MC14051BCP
MC14052BCP
MC14053BCP
MC14071BCP
MSM4051BRS
MSM4052BRS
MSM4053BRS
MSM4071BRS
SN74LS138N
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TC4053BP
TC4071BP
μPD4051BC
μPD4052BC
μPD4053BC
μPD6326C



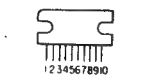
STK4121II



μPC4558C

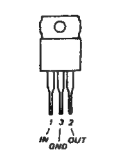


μPD1188H

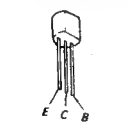


(Marking side view)

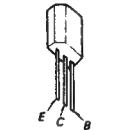
μPC7812H



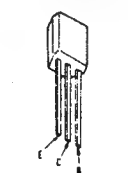
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2SA933S
2SC1740S



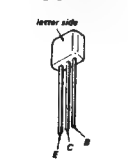
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2SC403C



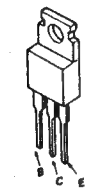
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2SA1115
2SC2458
2SC2603
2SC2669
2SC403SP
2SC403PS-3
DTC124ES



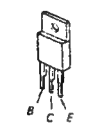
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2SC2785
2SC2785-E
2SC2785-F



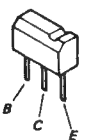
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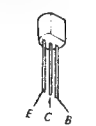
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2SC1826-0
2SD313HP
2SD560
2SD880
2SD880-Y
2SD1406
2SD1406-Y



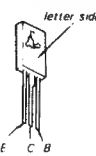
2SC1652



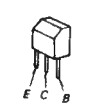
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2SC2230A
2SC2383
2SD789



2SC2456
2SC2611
2SC2688
2SC3417
2SC3503



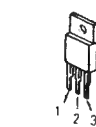
2SD774



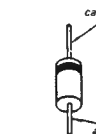
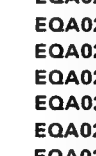
2SD1135



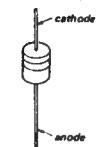
2SD1399-CA



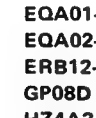
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1S1555
1S2076
1S2473
EM1Z
EQA02-05A5
EQA02-06A
EQA02-06A5
EQA02-06B5
EQA02-06C5
EQA02-06D5
EQA02-09C5
EQA02-10B5
EQA02-32A
HZ4B3
HZ5B1
HZ6B2
HZ11A2
RD10E-B2
RD10E-N3
RD13E-B2
RD13E-N2
RD18E-B3
RD33E-B2
RD3.6E-N1
RD3.9E-N2
RD4.7E-N2
RD5.6E-B2
RD5.6E-L1
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RD6.2E-N1
RD6.2E-N2
RD9.1E-N3
US1035



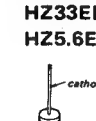
1SS119
1SS120
1SS133
1SS148



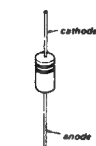
10E2
EQA01-05
EQA02-12B5
ERB12-02
GP08D
HZ4A2
HZ6A3
HZ6B3
HZ6C2
HZ9C1
HZ12B2
HZ33EB2
HZ5.6EB2



1N4148H
1S1555
1S2076
1S2473
EM1Z
EQA02-05A5
EQA02-06A
EQA02-06A5
EQA02-06B5
EQA02-06C5
EQA02-06D5
EQA02-09C5
EQA02-10B5
EQA02-32A
HZ4B3
HZ5B1
HZ6B2
HZ11A2
RD10E-B2
RD10E-N3
RD13E-B2
RD13E-N2
RD18E-B3
RD33E-B2
RD3.6E-N1
RD3.9E-N2
RD4.7E-N2
RD5.6E-B2
RD5.6E-L1
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RD5.6E-N3
RD6.2E-N1
RD6.2E-N2
RD9.1E-N3
US1035



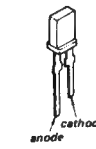
RH1A
SIB01-02



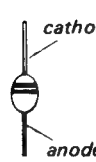
ERC26-15SA



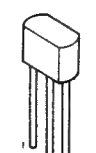
GL-9HY2
GL-9PR20



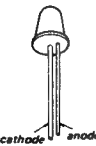
GU3A



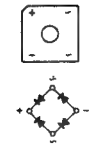
MC911



PH302B



RB406NH



S1VB20



S3WB60S
S3WB60Z



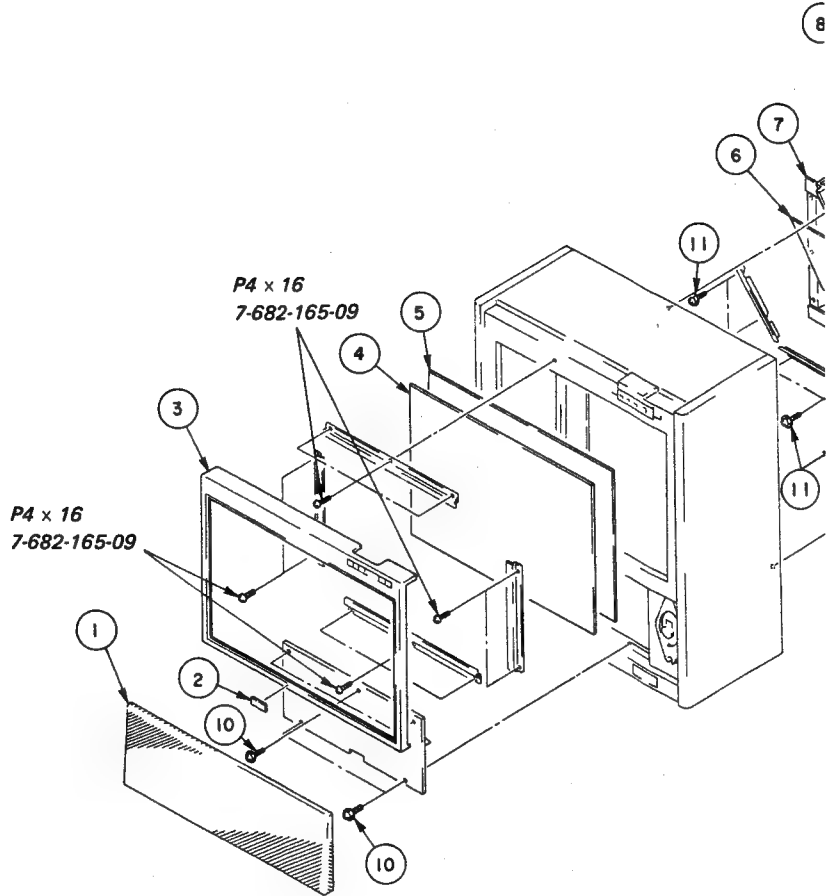
V06C



NOTE:

- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked " * " are since they are seldom r routine service. Some del anticipated when ordering

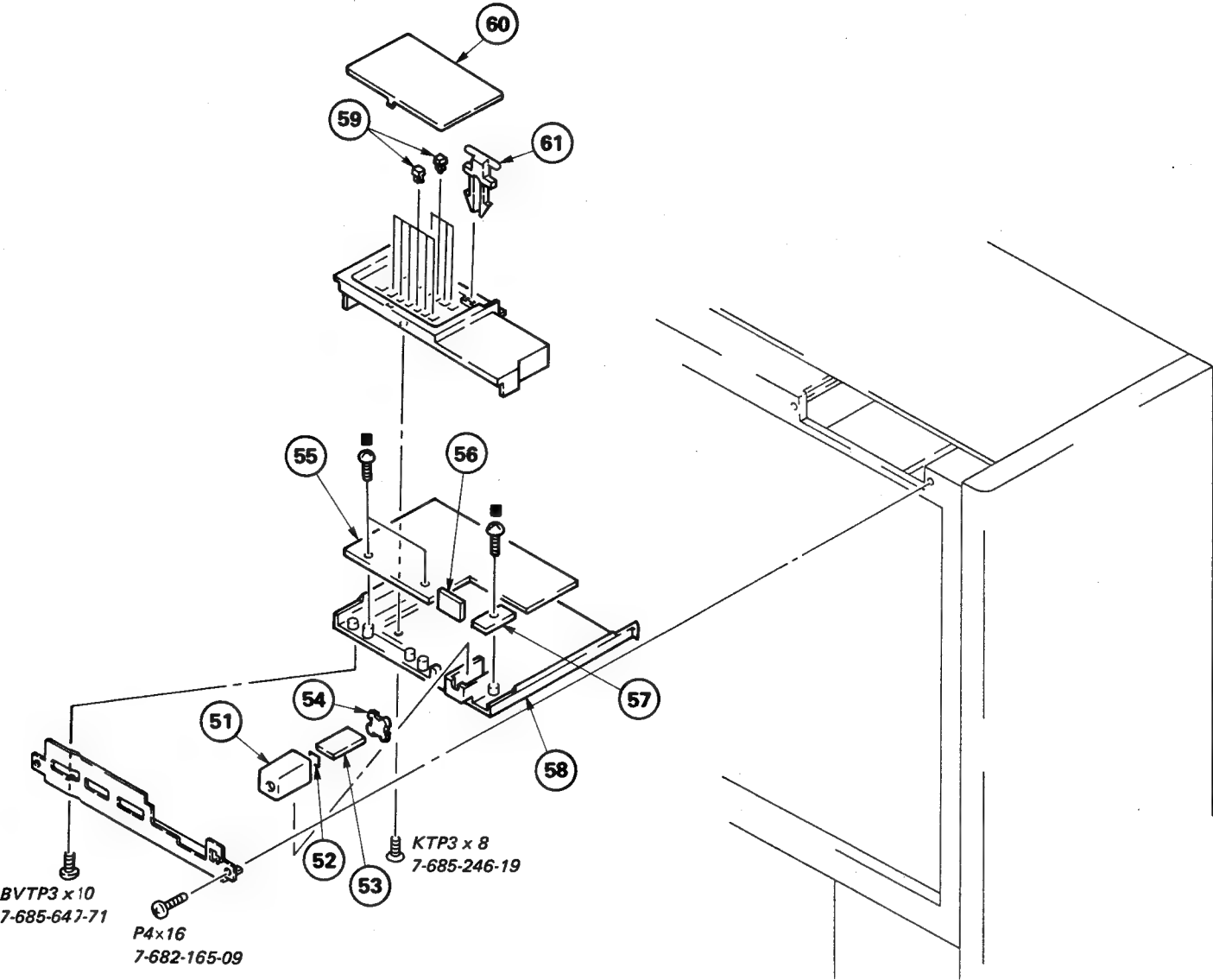
5-1. CABINET



No.	Part No.	Description	Remark	No.
1	X-4375-433-1	GRILLE ASSY, SPEAKER		10
2	*4-359-616-00	EMBLEM, SONY		11
3	X-4375-434-1	FRAME ASSY, SCREEN		12
4	4-375-528-01	PLATE (F), DIFFUSION		13
5	4-375-529-01	PLATE (L), DIFFUSION		
6	4-375-432-01	MIRROR, REFLECTION		
7	*4-375-451-01	COVER, MIRROR		
8	*4-375-437-01	COVER (U), BACK		15
9	*4-375-452-01	COVER (L), BACK		

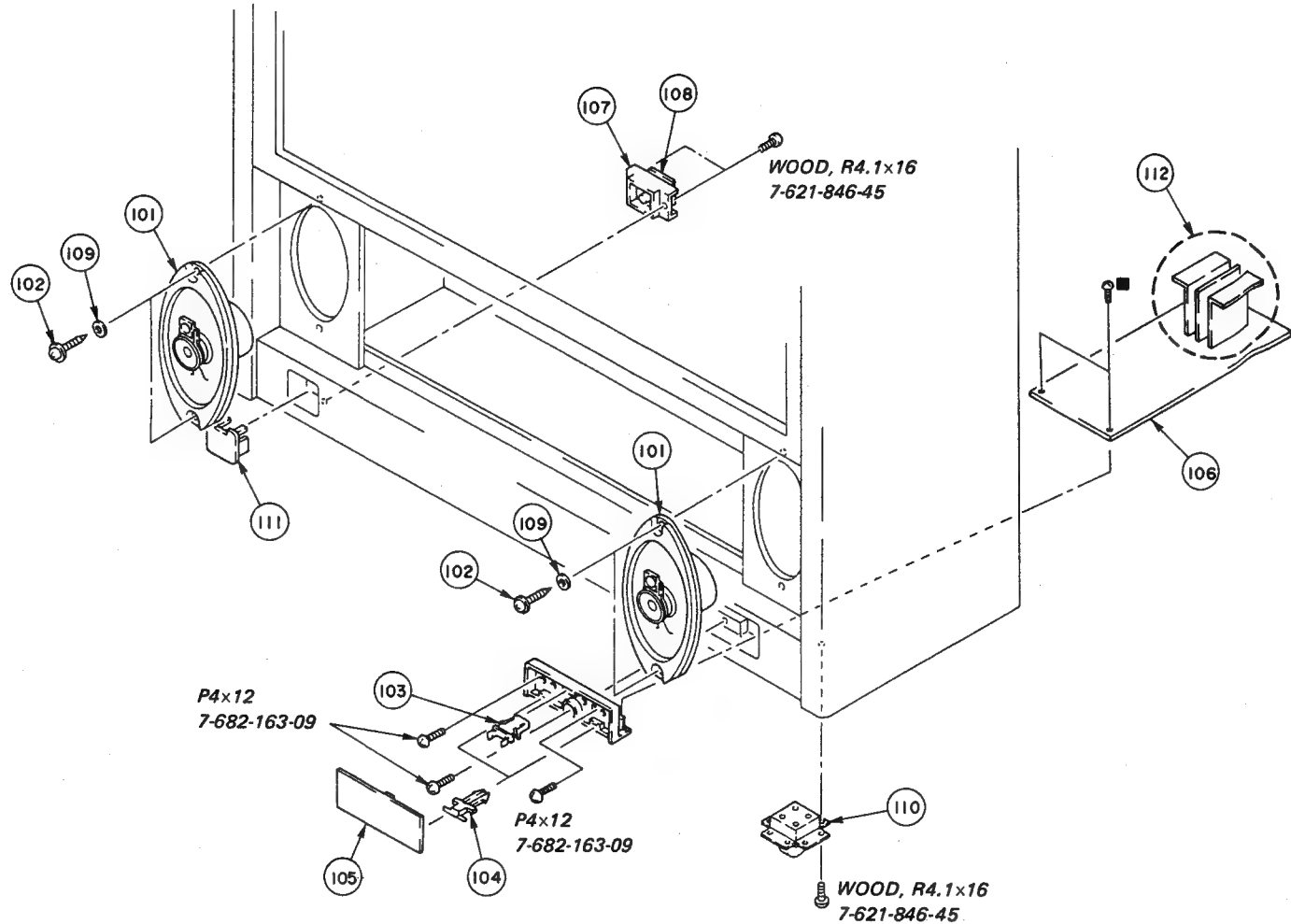
5-2. CONTROL PANEL

■ BVTP 3x8 7-685-646-71



5-3. SPEAKER

■ BVTP 3x8 7-685-646-71



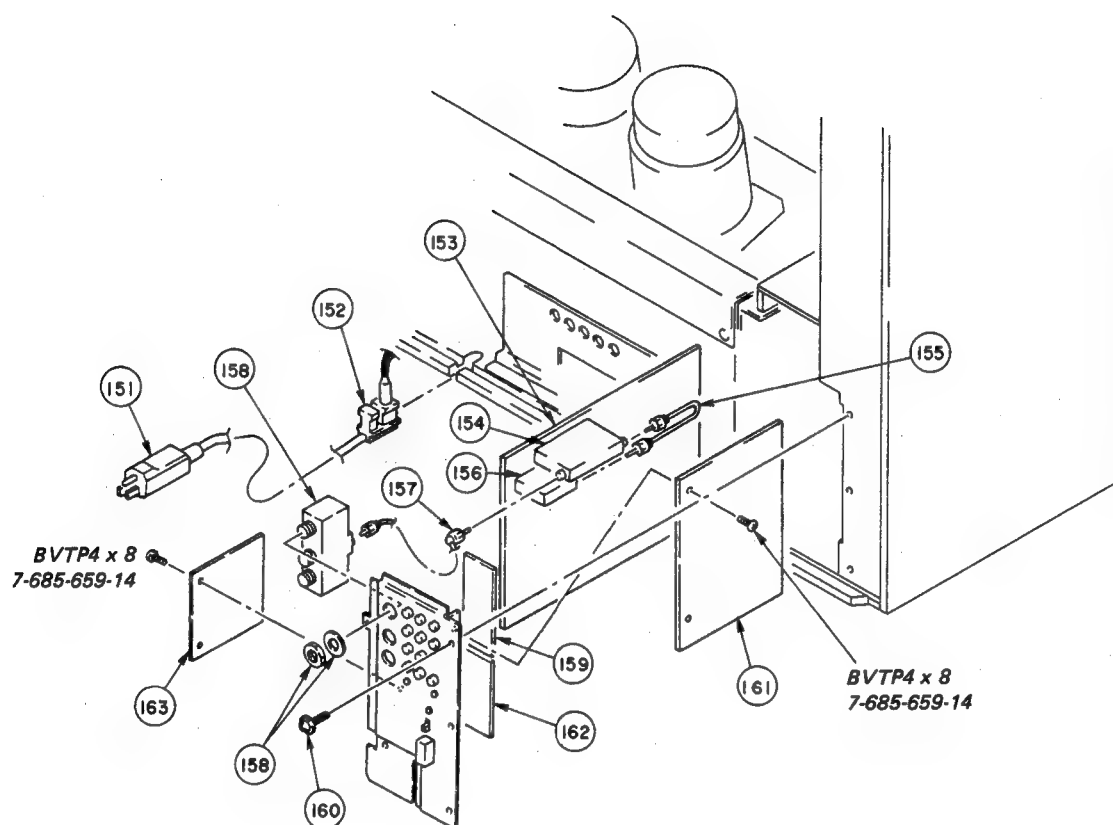
mark	No.	Part No.	Description	Remark
.	51	*4-342-117-00	CASE, SHIELD (MAIN), R	
.	52	*4-333-624-00	FILM (N), SPECIAL	
.	53	*1-611-717-11	N BOARD	
.	54	*4-342-118-00	LID, SHIELD CASE, R	
.	55	*A-1371-058-A	M BOARD, COMPLETE (Serial No.2,000,001 and later)	
		*A-1371-176-A	M BOARD, COMPLETE (Serial No.7,000,001 and later)	

No.	Part No.	Description	Remark
56	*1-615-621-12	T1 BOARD	
57	*1-615-622-12	T2 BOARD	
58	4-375-441-01	PANEL (L), CONTROL	
59	4-375-403-01	BUTTON, SUB CONTROL	
60	X-4375-430-1	DOOR ASSY, CONTROL	
61	3-703-035-11	SHAFT, LID	

No.	Part No.	Description	Remark
101	1-503-601-11	SPEAKER	
102	3-701-910-31	SCREW, SPECIAL (Serial No. 7,000,001 and later)	
	4-378-522-01	SCREW, TAPPING, HEXAGON HEAD (Serial No. 2,000,001 and later)	
103	4-352-034-00	CATCHER, PUSH	
104	3-703-035-11	SHAFT, LID	
105	X-4375-404-3	DOOR ASSY, REGISTRATION	
106	*A-1340-804-A	D BOARD, COMPLETE (Serial No.2,000,001 and later)	
	*A-1340-844-A	D BOARD, COMPLETE (Serial No.7,000,001 and later)	

No.	Part No.	Description	Remark
107	1-536-922-11	TERMINAL BOARD, INPUT/OUTPUT	
108	*1-615-619-11	Z BOARD	
109	4-844-815-00	WASHER	
110	4-346-435-11	CASTER	
111	*4-375-538-01	CAP, AV TERMINAL	
112	*2-261-207-00	HEAT SINK, AF OUT	

5-4. TERMINAL BOARD



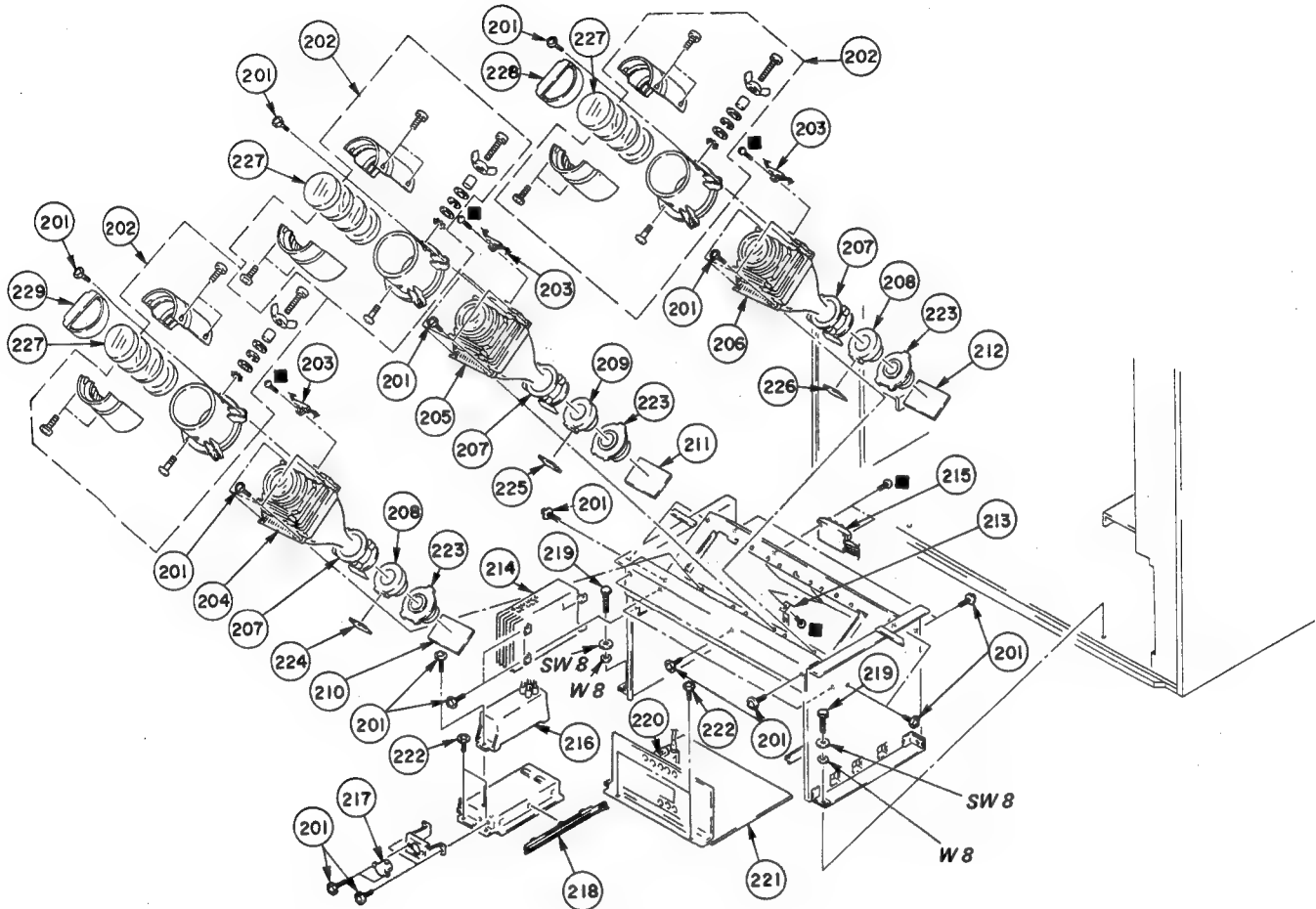
No.	Part No.	Description	Remark	No.	Part No.	Description	Remark
151	▲1-557-970-11	CORD, POWER		158	▲1-417-125-11	SELECTOR, ANTENNA	
152	▲4-375-449-01	HOLDER, AC CORD		159	*1-615-618-11	U1 BOARD	
153	*A-1296-147-A	A BOARD, COMPLETE (Serial No.2,000,001 and later)		160	3-701-910-31	SCREW, SPECIAL	
	*A-1296-182-A	A BOARD, COMPLETE (Serial No.7,000,001 and later)		161	*A-1275-074-A	U BOARD, COMPLETE (Serial No.2,000,001 and later)	
154	▲1-463-470-00	TUNER, ET (BT-896)			*A-1275-078-A	U BOARD, COMPLETE (Serial No.7,000,001 and later)	
155	*1-551-382-00	CABLE, P-P		162	*1-618-588-11	WA BOARD	
156	▲1-463-471-33	SYNTHESIZER UNIT, FREQUENCY		163	*A-1389-761-A	WB BOARD, COMPLETE	
157	*1-557-056-31	CABLE, P-P					

NOTE:

The components identified by shading and mark ▲ are critical for safety. Replace only with part number specified.

5-5. CHASSIS

- BVTP 3×8 7-685-646-71
- W8 7-688-007-12
- SW8 7-623-214-22



No.	Part No.	Description	Remark	No.	Part No.	Description	Remark
201	3-703-251-00	SCREW (+M4), IT TAPPING		217	▲1-509-841-12	OUTLET, AC	
202	4-375-447-03	LENS (DEV.B), DELTA 16-OC		218	*4-024-014-00	GUIDE, PC BOARD	
203	▲1-570-258-21	SWITCH, THERMAL REED		219	4-359-607-00	SCREW, FIXED, CHASSIS	
204	▲8-737-552-05	CRT (SD-174(B))		220	▲1-439-366-12	TRANSFORMER ASSY, FLYBACK	
205	▲8-737-551-05	CRT (SD-174(G))		221	*A-1345-624-A	E BOARD, COMPLETE	(Serial No.2,000,001 and later)
206	▲8-737-553-05	CRT (SD-174(R))			*A-1345-635-A	E BOARD, COMPLETE	(Serial No.7,000,001 and later)
207	▲1-451-269-12	DEFLECTION YOKE (SY-174)		222	3-701-810-61	SCREW, TERMINAL	
208	▲1-452-361-12	NECK ASSY, CRT (NA365)		223	▲1-452-261-31	CRT NECK ASSY (362)	
209	▲1-452-361-22	NECK ASSY, CRT (NA365)		224	*1-618-357-11	XB BOARD	
210	*1-615-625-11	CB BOARD		225	*1-618-356-11	XG BOARD	
211	*1-615-624-11	CG BOARD		226	*1-618-355-11	XR BOARD	
212	*1-615-623-11	CR BOARD		227	*4-375-505-01	IRIS, LENS	
213	4-332-209-00	SPRING		228	4-375-502-01	FILTER, LENS	
214	▲1-413-219-11	SWITCHING REGULATOR (TK-10)		229	4-375-502-11	FILTER, LENS	
215	▲1-230-089-21	RESISTOR ASSY, HIGH-VOLTAGE					
216	▲1-453-099-11	DC BLOCK, HIGH-VOLTAGE					

NOTE:

The components identified by shading and mark ▲ are critical for safety. Replace only with part number specified.

SECTION 6
ELECTRICAL PARTS LIST

U

NOTE:

The components identified by shading and mark **A** are critical for safety. Replace only with part number specified.

When indicating parts by reference number, please include the board name.

• Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

CAPACITORS

- MF : μ F, PF : μ PF

- RESISTORS
• All resistors are in ohms
• F : nonflammable

COILS

- MMH : mH, UH : μ H

- The components identified by **A** in this parts list have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.

Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
*A-1275-074-A	U BOARD, COMPLETE (Serial No.2,000,001 and later) *****			C8062	1-123-330-00	ELECT 22MF 20%	25V
*A-1275-078-A	U BOARD, COMPLETE (Serial No.7,000,001 and later) *****			C8063	1-123-333-00	ELECT 100MF 20%	16V
				C8064	1-101-005-00	CERAMIC 0.022MF	50V
				C8200	1-101-001-00	CERAMIC 0.001MF	50V
				C8201	1-123-333-00	ELECT 100MF 20%	16V
				C8202	1-101-005-00	CERAMIC 0.022MF	50V
				C8810	1-123-356-00	ELECT 10MF 20%	16V
				C8811	1-108-381-91	MYLAR 0.022MF	10% 100V
				C8812	1-106-196-00	MYLAR 0.01MF	10% 100V
				C8813	1-123-356-00	ELECT 10MF 20%	16V
				C8814	1-123-356-00	ELECT 10MF 20%	16V
				C8815	1-123-369-00	ELECT 4.7MF 20%	50V
				C8816	1-123-356-00	ELECT 10MF 20%	16V
				C8818	1-123-356-00	ELECT 10MF 20%	16V
				C8819	1-130-309-00	FILM 0.033MF	5% 100V
				C8820	1-123-356-00	ELECT 10MF 20%	16V
				C8821	1-130-279-00	FILM 0.0018MF	5% 100V
				C8822	1-123-380-00	ELECT 1MF 20%	50V
				C8823	1-123-356-00	ELECT 10MF 20%	16V
				C8824	1-102-125-00	CERAMIC 0.0047MF	10% 50V
				C8825	1-123-356-00	ELECT 10MF 20%	16V
				C8826	1-123-323-00	ELECT 470MF 20%	16V
				C8827	1-123-356-00	ELECT 10MF 20%	50V
				C8828	1-108-373-91	MYLAR 0.0047MF	10% 100V
				C8829	1-123-356-00	ELECT 10MF 20%	16V
				C8830	1-123-308-00	ELECT 220MF 20%	10V
				C8832	1-130-281-00	FILM 0.0022MF	5% 100V
				C8833	1-131-343-00	TANTALUM 0.22MF	10% 35V
				C8834	1-131-343-00	TANTALUM 0.22MF	10% 35V
				C8835	1-130-281-00	FILM 0.0022MF	5% 100V
				C8836	1-123-356-00	ELECT 10MF 20%	16V
				C8837	1-123-380-00	ELECT 1MF 20%	50V
				C8838	1-130-281-00	FILM 0.0022MF	5% 100V
				C8839	1-123-356-00	ELECT 10MF 20%	16V
				C8840	1-130-285-00	FILM 0.0033MF	5% 100V
				C8841	1-130-285-00	FILM 0.0033MF	5% 100V
				C8842	1-131-345-00	TANTALUM 0.47MF	10% 35V
				C8843	1-130-309-00	FILM 0.033MF	5% 100V
				C8844	1-130-285-00	FILM 0.0033MF	5% 100V
				C8845	1-130-285-00	FILM 0.0033MF	5% 100V
				C8846	1-131-371-00	TANTALUM 10MF	10% 16V
				C8847	1-123-332-00	ELECT 47MF 20%	16V
				C8848	1-108-622-91	MYLAR 0.0047MF	10% 100V
				C8849	1-123-380-00	ELECT 1MF 20%	50V
				C8850	1-123-380-00	ELECT 1MF 20%	50V
				C8851	1-123-330-00	ELECT 22MF 20%	16V
				C8852	1-123-382-00	ELECT 3.3MF 20%	50V
				C8853	1-123-356-00	ELECT 10MF 20%	50V
				C8854	1-123-380-00	ELECT 1MF 20%	50V
				C8855	1-123-382-00	ELECT 3.3MF 20%	50V
				C8856	1-108-622-91	MYLAR 0.0047MF	10% 100V
				C8857	1-131-368-00	TANTALUM 3.3MF	10% 16V
				C8858	1-130-297-00	FILM 0.01MF	5% 100V
C8001	1-123-318-00	ELECT 33MF 20%	16V				
C8002	1-123-318-00	ELECT 33MF 20%	16V				
C8003	1-123-318-00	ELECT 33MF 20%	16V				
C8004	1-123-318-00	ELECT 33MF 20%	16V				
C8005	1-123-356-00	ELECT 10MF 20%	16V				
C8006	1-101-005-00	CERAMIC 0.022MF	50V				
C8007	1-123-356-00	ELECT 10MF 20%	16V				
C8008	1-123-311-00	ELECT 1000MF	20% 10V				
C8011	1-102-963-00	CERAMIC 33PF	5% 50V				
C8024	1-102-971-00	CERAMIC 82PF	5% 50V				
C8025	1-101-880-00	CERAMIC 47PF	5% 50V				
C8026	1-123-356-00	ELECT 10MF 20%	16V				
C8027	1-123-356-00	ELECT 10MF 20%	16V				
C8028	1-101-005-00	CERAMIC 0.022MF	50V				
C8030	1-101-005-00	CERAMIC 0.022MF	50V				
C8031	1-101-005-00	CERAMIC 0.022MF	50V				
C8032	1-123-380-00	ELECT 1MF 20%	50V				
C8033	1-123-380-00	ELECT 1MF 20%	50V				
C8034	1-123-380-00	ELECT 1MF 20%	50V				
C8035	1-123-380-00	ELECT 1MF 20%	50V				
C8036	1-123-380-00	ELECT 1MF 20%	50V				
C8037	1-123-380-00	ELECT 1MF 20%	50V				
C8038	1-123-380-00	ELECT 1MF 20%	50V				
C8039	1-123-380-00	ELECT 1MF 20%	50V				
C8040	1-123-380-00	ELECT 1MF 20%	50V				
C8041	1-123-380-00	ELECT 1MF 20%	50V				
C8042	1-101-005-00	CERAMIC 0.022MF	50V				
C8043	1-101-005-00	CERAMIC 0.022MF	50V				
C8044	1-123-333-00	ELECT 100MF 20%	16V				
C8045	1-123-356-00	ELECT 10MF 20%	25V				
C8046	1-123-356-00	ELECT 10MF 20%	25V				
C8047	1-123-380-00	ELECT 1MF 20%	50V				
C8048	1-123-380-00	ELECT 1MF 20%	50V				
C8049	1-123-318-00	ELECT 33MF 20%	16V				
C8050	1-108-591-00	MYLAR 0.033MF	10% 50V				
C8051	1-108-825-91	MYLAR 0.001MF	10% 50V				
C8052	1-108-825-91	MYLAR 0.001MF	10% 50V				
C8053	1-108-591-00	MYLAR 0.033MF	10% 50V				
C8054	1-123-325-00	ELECT 2200MF	20% 16V				
C8055	1-101-001-00	CERAMIC 0.001MF	50V				
C8056	1-101-001-00	CERAMIC 0.001MF	50V				
C8058	1-101-001-00	CERAMIC 0.001MF	50V				
C8059	1-123-381-00	ELECT 2.2MF	20% 50V				
C8060	1-101-005-00	CERAMIC 0.022MF	50V				
C8061	1-123-330-00	ELECT 22MF 20%	25V				

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Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
C8870	1-101-005-00	CERAMIC 0.022MF	50V	Q8040	8-729-117-54	TRANSISTOR 2SA1175	
		DIODE		Q8041	8-729-117-54	TRANSISTOR 2SA1175	
D8004	8-719-911-19	DIODE 1SS119		Q8042	8-729-178-54	TRANSISTOR 2SC2785	
D8008	8-719-911-19	DIODE 1SS119		Q8044	8-729-178-54	TRANSISTOR 2SC2785	
D8009	8-719-911-19	DIODE 1SS119		Q8045	8-729-900-36	TRANSISTOR DTC124ES	
D8010	8-719-911-19	DIODE 1SS119					
D8013	8-719-911-19	DIODE 1SS119		Q8046	8-729-178-54	TRANSISTOR 2SC2785	
				Q8047	8-729-178-54	TRANSISTOR 2SC2785	
D8014	8-719-911-19	DIODE 1SS119		Q8830	8-729-178-54	TRANSISTOR 2SC2785	
D8015	8-719-911-19	DIODE 1SS119		Q8831	8-729-178-54	TRANSISTOR 2SC2785	
D8016	8-719-911-19	DIODE 1SS119		Q8872	8-729-117-54	TRANSISTOR 2SA1175	
D8017	8-719-911-19	DIODE 1SS119					
D8018	8-719-911-19	DIODE 1SS119		Q8873	8-729-178-54	TRANSISTOR 2SC2785	
D8022	8-719-102-73	DIODE RD6.2E-N1				RESISTOR	
D8023	8-719-102-73	DIODE RD6.2E-N1		R8001	1-247-713-11	CARBON 1K 5% 1/4W	
D8030	8-719-200-02	DIODE 10E2		R8002	1-249-419-11	CARBON 1.5K 5% 1/6W	
D8820	8-719-102-88	DIODE RD9.1E-N3		R8003	1-249-419-11	CARBON 1.5K 5% 1/6W	
D8821	8-719-102-74	DIODE RD6.2E-N2		R8004	1-249-405-11	CARBON 100 5% 1/6W	
				R8005	1-249-417-11	CARBON 1K 5% 1/6W	
		IC					
IC8001	8-759-240-52	IC TC4052BP		R8006	1-249-417-11	CARBON 1K 5% 1/6W	
IC8002	8-759-140-53	IC UPD4053BC		R8007	1-247-823-00	CARBON 470 5% 1/6W	
IC8005	8-757-948-00	IC CX7948		R8008	1-249-417-11	CARBON 1K 5% 1/6W	
IC8006	8-759-140-51	IC UPD4051BC		R8009	1-249-417-11	CARBON 1K 5% 1/6W	
IC8007	8-759-140-51	IC UPD4051BC		R8010	1-247-859-00	CARBON 15K 5% 1/6W	
IC8008	8-759-907-16	IC CX10026		R8011	1-247-857-00	CARBON 12K 5% 1/6W	
IC8009	8-759-600-02	IC M5218L		R8012	1-247-823-00	CARBON 470 5% 1/6W	
IC8810	8-752-011-20	IC CX20112		R8013	1-249-429-11	CARBON 10K 5% 1/6W	
IC8811	8-759-400-88	IC AN6291		R8014	1-247-804-00	CARBON 75 5% 1/6W	
IC8812	8-759-145-58	IC UPC4558C		R8018	1-249-441-11	CARBON 100K 5% 1/6W	
		COIL					
L8801	1-408-242-00	MICRO INDUCTOR 10MMH		R8024	1-249-419-11	CARBON 1.5K 5% 1/6W	
		TRANSISTOR		R8025	1-247-799-00	CARBON 47 5% 1/6W	
Q8001	8-729-117-54	TRANSISTOR 2SA1175		R8035	1-249-433-11	CARBON 22K 5% 1/6W	
Q8002	8-729-117-54	TRANSISTOR 2SA1175		R8059	1-249-433-11	CARBON 22K 5% 1/6W	
Q8003	8-729-117-54	TRANSISTOR 2SA1175		R8060	1-249-425-11	CARBON 4.7K 5% 1/6W	
Q8004	8-729-117-54	TRANSISTOR 2SA1175					
Q8005	8-729-117-54	TRANSISTOR 2SA1175		R8061	1-249-433-11	CARBON 22K 5% 1/6W	
				R8062	1-249-425-11	CARBON 4.7K 5% 1/6W	
Q8006	8-729-178-54	TRANSISTOR 2SC2785		R8063	1-249-417-11	CARBON 1K 5% 1/6W	
Q8008	8-729-168-82	TRANSISTOR 2SC2688		R8066	1-247-823-00	CARBON 470 5% 1/6W	
Q8011	8-729-178-54	TRANSISTOR 2SC2785		R8091	1-249-417-11	CARBON 1K 5% 1/6W	
Q8021	8-729-178-54	TRANSISTOR 2SC2785					
Q8022	8-729-178-54	TRANSISTOR 2SC2785		R8093	1-249-417-11	CARBON 1K 5% 1/6W	
				R8094	1-249-433-11	CARBON 22K 5% 1/6W	
Q8023	8-729-178-54	TRANSISTOR 2SC2785		R8095	1-247-903-00	CARBON 1M 5% 1/6W	
Q8025	8-729-900-36	TRANSISTOR DTC124ES		R8096	1-249-432-11	CARBON 18K 5% 1/6W	
Q8032	8-729-178-54	TRANSISTOR 2SC2785		R8097	1-249-435-11	CARBON 33K 5% 1/6W	
Q8033	8-729-900-36	TRANSISTOR DTC124ES					
Q8036	8-729-178-54	TRANSISTOR 2SC2785		R8098	1-249-429-11	CARBON 10K 5% 1/6W	
				R8099	1-249-429-11	CARBON 10K 5% 1/6W	
Q8037	8-729-117-54	TRANSISTOR 2SA1175		R8100	1-249-417-11	CARBON 1K 5% 1/6W	
Q8038	8-729-117-54	TRANSISTOR 2SA1175		R8101	1-249-405-11	CARBON 100 5% 1/6W	
Q8039	8-729-117-54	TRANSISTOR 2SA1175		R8103	1-249-405-11	CARBON 100 5% 1/6W	
				R8106	1-249-433-11	CARBON 22K 5% 1/6W	
				R8107	1-249-433-11	CARBON 22K 5% 1/6W	
				R8108	1-249-433-11	CARBON 22K 5% 1/6W	
				R8109	1-249-433-11	CARBON 22K 5% 1/6W	
				R8110	1-249-433-11	CARBON 22K 5% 1/6W	

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Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
R8111	1-249-433-11	CARBON	22K 5% 1/6W	R8173	1-249-441-11	CARBON	100K 5% 1/6W
R8112	1-249-433-11	CARBON	22K 5% 1/6W	R8174	1-249-441-11	CARBON	100K 5% 1/6W
R8113	1-249-441-11	CARBON	100K 5% 1/6W	R8175	1-249-425-11	CARBON	4.7K 5% 1/6W
R8114	1-249-433-11	CARBON	22K 5% 1/6W	R8176	1-249-425-11	CARBON	4.7K 5% 1/6W
R8115	1-249-441-11	CARBON	100K 5% 1/6W	R8177	1-249-425-11	CARBON	4.7K 5% 1/6W
R8116	1-249-433-11	CARBON	22K 5% 1/6W	R8178	1-249-425-11	CARBON	4.7K 5% 1/6W
R8117	1-249-441-11	CARBON	100K 5% 1/6W	R8179	1-249-429-11	CARBON	10K 5% 1/6W
R8118	1-249-433-11	CARBON	22K 5% 1/6W	R8180	1-249-429-11	CARBON	10K 5% 1/6W
R8119	1-249-441-11	CARBON	100K 5% 1/6W	R8181	1-249-429-11	CARBON	10K 5% 1/6W
R8120	1-249-441-11	CARBON	100K 5% 1/6W	R8182	1-249-429-11	CARBON	10K 5% 1/6W
R8121	1-249-441-11	CARBON	100K 5% 1/6W	R8188	1-249-419-11	CARBON	1.5K 5% 1/6W
R8122	1-249-441-11	CARBON	100K 5% 1/6W	R8189	1-249-425-11	CARBON	4.7K 5% 1/6W
R8123	1-249-441-11	CARBON	100K 5% 1/6W	R8190	1-249-405-11	CARBON	100 5% 1/6W
R8124	1-249-441-11	CARBON	100K 5% 1/6W	R8200	1-249-405-11	CARBON	100 5% 1/6W
R8125	1-249-441-11	CARBON	100K 5% 1/6W	R8201	1-249-425-11	CARBON	4.7K 5% 1/6W
R8126	1-247-823-00	CARBON	470 5% 1/6W	R8202	1-249-417-11	CARBON	1K 5% 1/6W
R8127	1-247-823-00	CARBON	470 5% 1/6W	R8203	1-249-417-11	CARBON	1K 5% 1/6W
R8128	1-247-151-00	CARBON	6.8K 5% 1/4W	R8208	1-249-419-11	CARBON	1.5K 5% 1/6W
R8129	1-247-837-00	CARBON	1.8K 5% 1/6W	R8811	1-249-417-11	CARBON	1K 5% 1/6W
R8130	1-249-433-11	CARBON	22K 5% 1/6W	R8812	1-249-419-11	CARBON	1.5K 5% 1/6W
R8131	1-249-437-11	CARBON	47K 5% 1/6W	R8813	1-249-417-11	CARBON	1K 5% 1/6W
R8132	1-249-433-11	CARBON	22K 5% 1/6W	R8814	1-249-417-11	CARBON	1K 5% 1/6W
R8133	1-249-437-11	CARBON	47K 5% 1/6W	R8815	1-249-429-11	CARBON	10K 5% 1/6W
R8134	1-249-405-11	CARBON	100 5% 1/6W	R8816	1-249-441-11	CARBON	100K 5% 1/6W
R8137	1-249-437-11	CARBON	47K 5% 1/6W	R8817	1-215-470-00	METAL	110K 1% 1/6W
R8139	1-249-429-11	CARBON	10K 5% 1/6W	R8818	1-215-470-00	METAL	110K 1% 1/6W
R8140	1-247-823-00	CARBON	470 5% 1/6W	R8819	1-247-819-00	CARBON	330 5% 1/6W
R8141	1-249-441-11	CARBON	100K 5% 1/6W	R8820	1-247-873-00	CARBON	56K 5% 1/6W
R8142	1-247-823-00	CARBON	470 5% 1/6W	R8821	1-247-873-00	CARBON	56K 5% 1/6W
R8143	1-249-441-11	CARBON	100K 5% 1/6W	R8822	1-249-414-11	CARBON	560 5% 1/6W
R8144	1-249-417-11	CARBON	1K 5% 1/6W	R8823	1-215-430-00	METAL	2.4K 1% 1/6W
R8145	1-249-415-11	CARBON	680 5% 1/6W	R8824	1-247-853-00	CARBON	8.2K 5% 1/6W
R8146	1-249-417-11	CARBON	1K 5% 1/6W	R8825	1-249-417-11	CARBON	1K 5% 1/6W
R8147	1-249-415-11	CARBON	680 5% 1/6W	R8826	1-249-429-11	CARBON	10K 5% 1/6W
R8148	1-249-421-11	CARBON	2.2K 5% 1/6W	R8827	1-213-129-00	METAL OXIDE	68 5% 1W F
R8149	1-249-421-11	CARBON	2.2K 5% 1/6W	R8828	1-249-425-11	CARBON	4.7K 5% 1/6W
R8150	1-249-421-11	CARBON	2.2K 5% 1/6W	R8830	1-247-903-00	CARBON	1M 5% 1/6W
R8151	1-249-421-11	CARBON	2.2K 5% 1/6W	R8831	1-247-843-00	CARBON	3.3K 5% 1/6W
R8152	1-249-429-11	CARBON	10K 5% 1/6W	R8832	1-247-700-11	CARBON	100 5% 1/4W
R8154	1-249-429-11	CARBON	10K 5% 1/6W	R8834	1-249-435-11	CARBON	33K 5% 1/6W
R8155	1-249-429-11	CARBON	10K 5% 1/6W	R8835	1-247-843-00	CARBON	3.3K 5% 1/6W
R8160	1-249-417-11	CARBON	1K 5% 1/6W	R8836	1-247-885-00	CARBON	180K 5% 1/6W
R8162	1-247-804-00	CARBON	75 5% 1/6W	R8837	1-247-844-00	CARBON	3.6K 5% 1/6W
R8163	1-247-804-00	CARBON	75 5% 1/6W	R8838	1-247-885-00	CARBON	180K 5% 1/6W
R8164	1-247-804-00	CARBON	75 5% 1/6W	R8839	1-215-421-00	METAL	1K 1% 1/6W
R8165	1-249-422-11	CARBON	2.7K 5% 1/6W	R8840	1-247-811-00	CARBON	150 5% 1/6W
R8166	1-247-837-00	CARBON	1.8K 5% 1/6W	R8841	1-247-885-00	CARBON	180K 5% 1/6W
R8167	1-249-435-11	CARBON	33K 5% 1/6W	R8842	1-247-848-00	CARBON	5.1K 5% 1/6W
R8168	1-249-433-11	CARBON	22K 5% 1/6W	R8843	1-247-885-00	CARBON	180K 5% 1/6W
R8169	1-249-435-11	CARBON	33K 5% 1/6W	R8844	1-247-844-00	CARBON	3.6K 5% 1/6W
R8170	1-249-433-11	CARBON	22K 5% 1/6W	R8845	1-247-893-00	CARBON	390K 5% 1/6W
R8171	1-249-435-11	CARBON	33K 5% 1/6W	R8846	1-249-433-11	CARBON	22K 5% 1/6W
R8172	1-249-433-11	CARBON	22K 5% 1/6W	R8847	1-247-843-00	CARBON	3.3K 5% 1/6W

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Ref.No.	Part No.	Description	Remark
R8849	1-247-843-00	CARBON 3.3K 5% 1/6W	
R8850	1-247-721-11	CARBON 4.7K 5% 1/4W	
R8851	1-249-425-11	CARBON 4.7K 5% 1/6W	
R8852	1-249-425-11	CARBON 4.7K 5% 1/6W	
R8853	1-249-425-11	CARBON 4.7K 5% 1/6W	
R8854	1-247-811-00	CARBON 150 5% 1/6W	
R8855	1-247-869-00	CARBON 39K 5% 1/6W	
R8856	1-247-887-00	CARBON 220K 5% 1/6W	
R8857	1-247-843-00	CARBON 3.3K 5% 1/6W	
R8858	1-247-893-00	CARBON 390K 5% 1/6W	
R8859	1-249-429-11	CARBON 10K 5% 1/6W	
R8862	1-247-843-00	CARBON 3.3K 5% 1/6W	
R8863	1-249-434-11	CARBON 27K 5% 1/6W	

VARIABLE RESISTOR

RV8001	1-230-271-00	RES, ADJ, CARBON 4.7K
RV8002	1-230-271-00	RES, ADJ, CARBON 4.7K
RV8811	1-228-728-00	RES, ADJ, CERAMIC CARBON 100K
RV8812	1-228-726-00	RES, ADJ, CERAMIC CARBON 33K
RV8814	1-228-724-00	RES, ADJ, CERAMIC CARBON 10K
RV8815	1-228-724-00	RES, ADJ, CERAMIC CARBON 10K
RV8816	1-228-724-00	RES, ADJ, CERAMIC CARBON 10K
RV8817	1-228-731-00	RES, ADJ, CERAMIC CARBON 470K
RV8830	1-228-721-00	RES, ADJ, CERAMIC CARBON 2.2K
RV8831	1-228-725-00	RES, ADJ, CERAMIC CARBON 22K
RV8832	1-228-724-00	RES, ADJ, CERAMIC CARBON 10K

CONNECTOR

U8001	*1-564-440-11	PLUG, CONNECTOR (2.5MM) 4P
U8002	*1-564-353-00	PLUG, CONNECTOR (2.5MM) 2P
U8003	*1-564-440-11	PLUG, CONNECTOR (2.5MM) 4P
U8004	*1-564-353-00	PLUG, CONNECTOR (2.5MM) 2P
U8005	*1-564-441-11	PLUG, CONNECTOR (2.5MM) 5P
U8006	*1-564-353-00	PLUG, CONNECTOR (2.5MM) 2P
U8008	*1-564-443-11	PLUG, CONNECTOR (2.5MM) 7P
U8010	*1-564-441-11	PLUG, CONNECTOR (2.5MM) 5P
U8011	*1-564-354-00	PLUG, CONNECTOR (2.5MM) 3P
U8012	*1-564-353-00	PLUG, CONNECTOR (2.5MM) 2P
U8013	*1-564-440-11	PLUG, CONNECTOR (2.5MM) 4P
U8014	*1-564-441-11	PLUG, CONNECTOR (2.5MM) 5P
U8015	*1-564-354-00	PLUG, CONNECTOR (2.5MM) 3P
U8016	*1-508-784-00	1P PLUG

CRYSTAL

X8001	1-527-396-00	OSCILLATOR, CRYSTAL
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Ref.No.	Part No.	Description	Remark
	*1-615-618-11	U1 BOARD *****	
	*1-615-619-11	Z BOARD *****	
	*1-611-717-11	N BOARD *****	
		CAPACITOR	
C1	1-123-611-00	ELECT 1MF 20% 50V	
C2	1-123-613-00	ELECT 3.3MF 20% 50V	
C3	1-102-820-00	CERAMIC 330PF 5% 50V	
C4	1-123-821-00	ELECT 47MF 20% 16V	
		DIODE	
D1	8-719-110-32	DIODE PH302B	
		IC	
IC1	8-752-010-60	IC CX20106	
		RESISTOR	
R1	1-247-799-00	CARBON 47 5% 1/6W	
R2	1-247-775-00	CARBON 4.7 5% 1/6W	
R3	1-214-784-00	METAL 200K 1% 1/4W	
R4	1-249-433-11	CARBON 22K 5% 1/6W	

	*A-1296-147-A	A BOARD, COMPLETE (Serial No.2,000,001 and later) *****	
	*A-1296-182-A	A BOARD, COMPLETE (Serial No.7,000,001 and later) *****	
		CONNECTOR	
A1	*1-564-440-11	PLUG, CONNECTOR (2.5MM) 4P	
A2	*1-564-446-11	PLUG, CONNECTOR (2.5MM) 10P	
A3	*1-508-766-00	4P PLUG (M)	
A6	*1-564-440-11	PLUG, CONNECTOR (2.5MM) 4P	
A7	*1-564-353-00	PLUG, CONNECTOR (2.5MM) 2P	
A8	*1-564-443-11	PLUG, CONNECTOR (2.5MM) 7P	
A9	*1-564-441-11	PLUG, CONNECTOR (2.5MM) 5P	
A10	*1-564-354-00	PLUG, CONNECTOR (2.5MM) 3P	
A11	*1-564-440-11	PLUG, CONNECTOR (2.5MM) 4P	
A13	*1-564-441-11	PLUG, CONNECTOR (2.5MM) 5P	
A14	*1-564-446-11	PLUG, CONNECTOR (2.5MM) 10P	
A15	*1-564-440-11	PLUG, CONNECTOR (2.5MM) 4P	
A16	*1-564-353-00	PLUG, CONNECTOR (2.5MM) 2P	
A19	*1-564-353-00	PLUG, CONNECTOR (2.5MM) 2P	
A21	*1-564-354-00	PLUG, CONNECTOR (2.5MM) 3P	

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Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
A22	*1-564-354-00	PLUG, CONNECTOR (2.5MM) 3P		C155	1-102-074-00	CERAMIC 0.001MF	10% 50V
A23	*1-564-354-00	PLUG, CONNECTOR (2.5MM) 3P		C156	1-123-356-00	ELECT 10MF	20% 16V
CAPACITOR				C157	1-123-380-00	ELECT 1MF	20% 50V
C101	1-102-816-00	CERAMIC 120PF	5% 50V	C158	1-108-618-91	MYLAR 0.0022MF	10% 100V
C102	1-102-816-00	CERAMIC 120PF	5% 50V	C159	1-102-824-21	CERAMIC 470PF	5% 50V
C103	1-102-074-00	CERAMIC 0.001MF	10% 50V	C190	1-123-380-00	ELECT 1MF	20% 50V
C104	1-123-447-00	ELECT 0.22MF	20% 50V	C201	1-102-121-00	CERAMIC 0.0022MF	10% 50V
C106	1-123-380-00	ELECT 1MF	20% 50V	C202	1-102-128-21	CERAMIC 0.0082MF	10% 50V
C107	1-123-318-00	ELECT 33MF	20% 16V	C203	1-102-851-00	CERAMIC 15PF	5% 50V
C108	1-101-001-00	CERAMIC 0.001MF	50V	C204	1-102-525-00	CERAMIC 68PF	5% 50V
C110	1-123-381-00	ELECT 2.2MF	20% 50V	C205	1-123-318-00	ELECT 33MF	20% 16V
C111	1-123-381-00	ELECT 2.2MF	20% 50V	C206	1-123-318-00	ELECT 33MF	20% 16V
C112	1-123-381-00	ELECT 2.2MF	20% 50V	C207	1-101-884-00	CERAMIC 56PF	5% 50V
C113	1-102-976-00	CERAMIC 180PF	5% 50V	C208	1-161-059-00	CERAMIC 0.047MF	10% 25V
C114	1-102-976-00	CERAMIC 180PF	5% 50V	C209	1-102-824-21	CERAMIC 470PF	5% 50V
C116	1-123-369-00	ELECT 4.7MF	20% 25V	C211	1-102-121-00	CERAMIC 0.0022MF	10% 50V
C117	1-101-880-00	CERAMIC 47PF	5% 50V	C212	1-101-004-00	CERAMIC 0.01MF	50V
C118	1-101-884-00	CERAMIC 56PF	5% 50V	C213	1-161-059-00	CERAMIC 0.047MF	10% 25V
C119	1-102-976-00	CERAMIC 180PF	5% 50V	C214	1-102-121-00	CERAMIC 0.0022MF	10% 50V
C120	1-102-976-00	CERAMIC 180PF	5% 50V	C215	1-102-121-00	CERAMIC 0.0022MF	10% 50V
C121	1-108-622-91	MYLAR 0.0047MF	10% 100V	C216	1-102-525-00	CERAMIC 68PF	5% 50V
C122	1-101-004-00	CERAMIC 0.01MF	50V	C217	1-123-586-00	ELECT 0.1MF	20% 50V
C123	1-123-356-00	ELECT 10MF	20% 16V	C218	1-123-586-00	ELECT 0.1MF	20% 50V
C124	1-123-356-00	ELECT 10MF	20% 50V	C219	1-102-634-11	CERAMIC 8PF	0.5PF 50V
C125	1-123-380-00	ELECT 1MF	20% 50V	C220	1-102-637-00	CERAMIC 12PF	5% 50V
C126	1-123-380-00	ELECT 1MF	20% 50V	C221	1-161-013-00	CERAMIC 0.01MF	10% 25V
C127	1-123-380-00	ELECT 1MF	20% 50V	C222	1-123-379-00	ELECT 0.47MF	20% 50V
C128	1-123-380-00	ELECT 1MF	20% 50V	C223	1-123-356-00	ELECT 10MF	20% 16V
C129	1-123-333-00	ELECT 100MF	20% 16V	C226	1-102-121-00	CERAMIC 0.0022MF	10% 50V
C130	1-124-555-00	ELECT 1000MF	20% 16V	C228	1-123-330-00	ELECT 22MF	20% 16V
C131	1-123-318-00	ELECT 33MF	20% 16V	C231	1-102-121-00	CERAMIC 0.0022MF	10% 50V
C132	1-101-003-00	CERAMIC 0.0047MF	50V	C232	1-102-959-00	CERAMIC 22PF	5% 50V
C133	1-101-003-00	CERAMIC 0.0047MF	50V	C233	1-102-959-00	CERAMIC 22PF	5% 50V
C134	1-123-333-00	ELECT 100MF	20% 16V	C234	1-123-379-00	ELECT 0.47MF	20% 50V
C135	1-101-003-00	CERAMIC 0.0047MF	50V	C235	1-123-379-00	ELECT 0.47MF	20% 50V
C137	1-123-356-00	ELECT 10MF	20% 16V	C236	1-123-318-00	ELECT 33MF	20% 16V
C138	1-123-356-00	ELECT 10MF	20% 16V	C237	1-102-121-00	CERAMIC 0.0022MF	10% 50V
C139	1-123-356-00	ELECT 10MF	20% 16V	C238	1-123-381-00	ELECT 2.2MF	20% 50V
C140	1-101-001-00	CERAMIC 0.001MF	50V	C239	1-102-752-91	CERAMIC 30PF	5% 50V
C141	1-101-002-00	CERAMIC 0.0022MF	50V	C240	1-124-005-11	ELECT 4.7MF	20% 50V
C142	1-106-190-00	MYLAR 0.0056MF	10% 100V	C241	1-102-973-00	CERAMIC 100PF	5% 50V
C143	1-123-309-00	ELECT 330MF	20% 10V	C243	1-102-816-00	CERAMIC 120PF	5% 50V
C144	1-101-004-00	CERAMIC 0.01MF	50V	C244	1-123-318-00	ELECT 33MF	20% 16V
C145	1-101-004-00	CERAMIC 0.01MF	50V	C245	1-123-333-00	ELECT 100MF	20% 16V
C146	1-123-333-00	ELECT 100MF	20% 16V	C246	1-123-318-00	ELECT 33MF	20% 16V
C147	1-101-001-00	CERAMIC 0.001MF	50V	C247	1-123-333-00	ELECT 100MF	20% 16V
C149	1-101-004-00	CERAMIC 0.01MF	50V	C248	1-102-074-00	CERAMIC 0.001MF	10% 50V
C150	1-101-004-00	CERAMIC 0.01MF	50V	C249	1-123-380-00	ELECT 1MF	20% 50V
C151	1-119-135-00	ELECT 220MF	16V	C250	1-123-318-00	ELECT 33MF	20% 16V
C152	1-123-356-00	ELECT 10MF	20% 16V	C251	1-123-333-00	ELECT 100MF	20% 16V
C153	1-123-333-00	ELECT 100MF	20% 16V	C301	1-123-356-00	ELECT 10MF	20% 16V
C154	1-123-356-00	ELECT 10MF	20% 16V	C302	1-102-965-00	CERAMIC 39PF	5% 50V
				C303	1-101-884-00	CERAMIC 56PF	5% 50V

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Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
<u>COIL</u>				Q123	8-729-178-54	TRANSISTOR 2SC2785	
L101	1-407-717-00	MICRO INDUCTOR 1MMH		Q124	8-729-178-54	TRANSISTOR 2SC2785	
L102	1-404-538-11	COIL		Q125	8-729-117-54	TRANSISTOR 2SA1175	
L103	1-408-431-31	MICRO INDUCTOR 1.2UH		Q126	8-729-178-54	TRANSISTOR 2SC2785	
L104	1-408-436-31	MICRO INDUCTOR 3.3UH		Q127	8-729-178-54	TRANSISTOR 2SC2785	
L105	1-408-436-31	MICRO INDUCTOR 3.3UH		Q128	8-729-178-54	TRANSISTOR 2SC2785	
L107	1-410-016-11	MICRO INDUCTOR 3.9UH		Q201	8-729-266-93	TRANSISTOR 2SC2669	
L108	1-410-016-11	MICRO INDUCTOR 3.9UH		Q202	8-729-117-54	TRANSISTOR 2SA1175	
L109	1-410-016-11	MICRO INDUCTOR 3.9UH		Q204	8-729-178-54	TRANSISTOR 2SC2785	
L110	1-408-462-31	MICRO INDUCTOR 470UH		Q205	8-729-117-54	TRANSISTOR 2SA1175	
L111	1-408-450-31	MICRO INDUCTOR 47UH		Q206	8-729-178-54	TRANSISTOR 2SC2785	
L112	1-408-454-31	MICRO INDUCTOR 100UH		Q207	8-729-178-54	TRANSISTOR 2SC2785	
L113	1-408-431-31	MICRO INDUCTOR 1.2UH		Q208	8-729-288-02	TRANSISTOR 2SD880	
L114	1-408-430-31	MICRO INDUCTOR 1UH		Q209	8-729-201-78	TRANSISTOR 2SD1406	
L201	1-408-441-31	MICRO INDUCTOR 8.2UH		Q251	8-729-288-02	TRANSISTOR 2SD880	
L202	1-408-709-00	MICRO INDUCTOR 0.68UH		Q301	8-729-178-54	TRANSISTOR 2SC2785	
L203	1-410-073-11	MICRO INDUCTOR 0.22UH		Q302	8-729-178-54	TRANSISTOR 2SC2785	
L204	1-408-441-31	MICRO INDUCTOR 8.2UH		Q303	8-729-178-54	TRANSISTOR 2SC2785	
L205	1-408-445-31	MICRO INDUCTOR 18UH		Q304	8-729-178-54	TRANSISTOR 2SC2785	
L206	1-408-411-00	MICRO INDUCTOR 15UH		Q305	8-729-178-54	TRANSISTOR 2SC2785	
L207	1-408-402-00	MICRO INDUCTOR 2.7UH		Q306	8-729-178-54	TRANSISTOR 2SC2785	
L208	1-408-409-00	MICRO INDUCTOR 10UH		Q308	8-729-178-54	TRANSISTOR 2SC2785	
L301	1-408-450-31	MICRO INDUCTOR 47UH		Q309	8-729-178-54	TRANSISTOR 2SC2785	
L302	1-408-449-31	MICRO INDUCTOR 39UH		Q310	8-729-178-54	TRANSISTOR 2SC2785	
L303	1-404-540-11	COIL		Q311	8-729-178-54	TRANSISTOR 2SC2785	
L304	1-408-411-00	MICRO INDUCTOR 15UH		Q313	8-729-117-54	TRANSISTOR 2SA1175	
L305	1-408-431-31	MICRO INDUCTOR 1.2UH		Q314	8-729-115-30	TRANSISTOR 2SK105A-30	
L306	1-408-431-31	MICRO INDUCTOR 1.2UH		Q394	8-729-178-54	TRANSISTOR 2SC2785	
L307	1-408-431-31	MICRO INDUCTOR 1.2UH		Q403	8-729-117-54	TRANSISTOR 2SA1175	
L308	1-408-163-00	MICRO INDUCTOR 5.6MMH		Q404	8-729-178-54	TRANSISTOR 2SC2785	
L309	1-408-453-31	MICRO INDUCTOR 82UH		Q405	8-729-178-54	TRANSISTOR 2SC2785	
L310	1-408-409-00	MICRO INDUCTOR 10UH		Q406	8-729-178-54	TRANSISTOR 2SC2785	
L311	1-408-409-00	MICRO INDUCTOR 10UH		Q408	8-729-178-54	TRANSISTOR 2SC2785	
L401	1-408-454-31	MICRO INDUCTOR 100UH		Q411	8-729-117-54	TRANSISTOR 2SA1175	
				Q412	8-729-117-54	TRANSISTOR 2SA1175	
<u>TRANSISTOR</u>				Q413	8-729-117-54	TRANSISTOR 2SA1175	
Q101	8-729-117-54	TRANSISTOR 2SA1175		Q415	8-729-178-54	TRANSISTOR 2SC2785	
Q102	8-729-178-54	TRANSISTOR 2SC2785		Q416	8-729-178-54	TRANSISTOR 2SC2785	
Q103	8-729-178-54	TRANSISTOR 2SC2785		Q417	8-729-178-54	TRANSISTOR 2SC2785	
Q104	8-729-117-54	TRANSISTOR 2SA1175		Q418	8-729-178-54	TRANSISTOR 2SC2785	
Q105	8-729-178-54	TRANSISTOR 2SC2785		Q419	8-729-177-43	TRANSISTOR 2SD774	
Q106	8-729-178-54	TRANSISTOR 2SC2785		Q420	8-729-177-43	TRANSISTOR 2SD774	
Q107	8-729-117-54	TRANSISTOR 2SA1175		Q421	8-729-177-43	TRANSISTOR 2SD774	
Q108	8-729-178-54	TRANSISTOR 2SC2785		Q422	8-729-117-54	TRANSISTOR 2SA1175	
Q109	8-729-178-54	TRANSISTOR 2SC2785		Q423	8-729-117-54	TRANSISTOR 2SA1175	
Q110	8-729-178-54	TRANSISTOR 2SC2785		Q426	8-729-117-54	TRANSISTOR 2SA1175	
Q111	8-729-178-54	TRANSISTOR 2SC2785		Q430	8-729-117-54	TRANSISTOR 2SA1175	
Q113	8-729-117-54	TRANSISTOR 2SA1175		<u>RESISTOR</u>			
Q114	8-729-117-54	TRANSISTOR 2SA1175		R14	1-247-135-00	CARBON 1.5K 5% 1/4W	
Q115	8-729-117-54	TRANSISTOR 2SA1175		R15	1-249-425-11	CARBON 4.7K 5% 1/6W	
Q116	8-729-178-54	TRANSISTOR 2SC2785		R16	1-247-725-11	CARBON 10K 5% 1/4W	
Q118	8-729-178-54	TRANSISTOR 2SC2785		R20	1-249-421-11	CARBON 2.2K 5% 1/6W	

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Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
R21	1-247-717-11	CARBON	2.2K 5% 1/4W	R144	1-249-429-11	CARBON	10K 5% 1/6W
R22	1-247-717-11	CARBON	2.2K 5% 1/4W	R145	1-249-441-11	CARBON	100K 5% 1/6W
R23	1-247-717-11	CARBON	2.2K 5% 1/4W	R146	1-247-718-11	CARBON	2.7K 5% 1/4W
R25	1-247-713-11	CARBON	1K 5% 1/4W	R147	1-247-718-11	CARBON	2.7K 5% 1/4W
R26	1-249-429-11	CARBON	10K 5% 1/6W	R148	1-247-718-11	CARBON	2.7K 5% 1/4W
R27	1-249-435-11	CARBON	33K 5% 1/6W	R149	1-247-719-11	CARBON	3.3K 5% 1/4W
R28	1-247-713-11	CARBON	1K 5% 1/4W	R150	1-247-719-11	CARBON	3.3K 5% 1/4W
R001	1-247-711-11	CARBON	680 5% 1/4W	R151	1-247-704-11	CARBON	220 5% 1/4W
R002	1-247-705-11	CARBON	270 5% 1/4W	R152	1-249-437-11	CARBON	47K 5% 1/6W
R003	1-247-705-11	CARBON	270 5% 1/4W	R153	1-249-429-11	CARBON	10K 5% 1/6W
R004	1-247-843-00	CARBON	3.3K 5% 1/6W	R154	1-249-437-11	CARBON	47K 5% 1/6W
R005	1-247-843-00	CARBON	3.3K 5% 1/6W	R155	1-249-437-11	CARBON	47K 5% 1/6W
R006	1-247-163-00	CARBON	22K 5% 1/4W	R156	1-247-887-00	CARBON	220K 5% 1/6W
R007	1-247-719-11	CARBON	3.3K 5% 1/4W	R157	1-249-433-11	CARBON	22K 5% 1/6W
R008	1-247-719-11	CARBON	3.3K 5% 1/4W	R158	1-249-437-11	CARBON	47K 5% 1/6W
R009	1-247-843-00	CARBON	3.3K 5% 1/6W	R159	1-247-889-00	CARBON	270K 5% 1/6W
R010	1-247-719-11	CARBON	3.3K 5% 1/4W	R160	1-249-441-11	CARBON	100K 5% 1/6W
R012	1-247-704-11	CARBON	220 5% 1/4W	R161	1-247-713-11	CARBON	1K 5% 1/4W
R106	1-249-425-11	CARBON	4.7K 5% 1/6W	R162	1-247-713-11	CARBON	1K 5% 1/4W
R107	1-247-717-11	CARBON	2.2K 5% 1/4W	R163	1-247-713-11	CARBON	1K 5% 1/4W
R108	1-247-717-11	CARBON	2.2K 5% 1/4W	R164	1-249-421-11	CARBON	2.2K 5% 1/6W
R109	1-249-429-11	CARBON	10K 5% 1/6W	R165	1-249-421-11	CARBON	2.2K 5% 1/6W
R110	1-249-429-11	CARBON	10K 5% 1/6W	R166	1-247-076-00	CARBON	2.7 5% 1/4W
R111	1-247-823-00	CARBON	470 5% 1/6W	R167	1-206-696-00	METAL OXIDE	22K 5% 2W
R112	1-247-885-00	CARBON	180K 5% 1/6W	R168	1-247-717-11	CARBON	2.2K 5% 1/4W
R113	1-249-429-11	CARBON	10K 5% 1/6W	R169	1-247-725-11	CARBON	10K 5% 1/4W
R114	1-249-421-11	CARBON	2.2K 5% 1/6W	R170	1-247-725-11	CARBON	10K 5% 1/4W
R115	1-247-819-00	CARBON	330 5% 1/6W	R171	1-249-417-11	CARBON	1K 5% 1/6W
R118	1-247-713-11	CARBON	1K 5% 1/4W	R174	1-249-429-11	CARBON	10K 5% 1/6W
R119	1-249-417-11	CARBON	1K 5% 1/6W	R175	1-247-725-11	CARBON	10K 5% 1/4W
R120	1-249-437-11	CARBON	47K 5% 1/6W	R176	1-247-891-00	CARBON	330K 5% 1/6W
R121	1-249-437-11	CARBON	47K 5% 1/6W	R177	1-249-429-11	CARBON	10K 5% 1/6W
R122	1-247-163-00	CARBON	22K 5% 1/4W	R178	1-247-717-11	CARBON	2.2K 5% 1/4W
R123	1-247-717-11	CARBON	2.2K 5% 1/4W	R179	1-247-717-11	CARBON	2.2K 5% 1/4W
R124	1-247-849-00	CARBON	5.6K 5% 1/6W	R180	1-249-421-11	CARBON	2.2K 5% 1/6W
R125	1-249-435-11	CARBON	33K 5% 1/6W	R181	1-249-421-11	CARBON	2.2K 5% 1/6W
R126	1-247-851-00	CARBON	6.8K 5% 1/6W	R182	1-249-421-11	CARBON	2.2K 5% 1/6W
R127	1-249-419-11	CARBON	1.5K 5% 1/6W	R183	1-249-440-11	CARBON	82K 5% 1/6W
R128	1-247-857-00	CARBON	12K 5% 1/6W	R185	1-249-429-11	CARBON	10K 5% 1/6W
R129	1-249-429-11	CARBON	10K 5% 1/6W	R186	1-249-429-11	CARBON	10K 5% 1/6W
R130	1-247-167-00	CARBON	33K 5% 1/4W	R187	1-249-421-11	CARBON	2.2K 5% 1/6W
R131	1-247-887-00	CARBON	220K 5% 1/6W	R188	1-249-421-11	CARBON	2.2K 5% 1/6W
R132	1-247-153-00	CARBON	8.2K 5% 1/4W	R189	1-249-421-11	CARBON	2.2K 5% 1/6W
R133	1-247-873-00	CARBON	56K 5% 1/6W	R190	1-249-429-11	CARBON	10K 5% 1/6W
R134	1-247-895-00	CARBON	470K 5% 1/6W	R191	1-247-843-00	CARBON	3.3K 5% 1/6W
R135	1-247-895-00	CARBON	470K 5% 1/6W	R192	1-249-425-11	CARBON	4.7K 5% 1/6W
R136	1-247-889-00	CARBON	270K 5% 1/6W	R193	1-244-877-51	CARBON	1.5K 5% 1/2W
R137	1-249-421-11	CARBON	2.2K 5% 1/6W	R194	1-249-437-11	CARBON	47K 5% 1/6W
R138	1-247-125-00	CARBON	560 5% 1/4W	R196	1-249-437-11	CARBON	47K 5% 1/6W
R139	1-247-717-11	CARBON	2.2K 5% 1/4W	R197	1-249-437-11	CARBON	47K 5% 1/6W
R140	1-247-717-11	CARBON	2.2K 5% 1/4W	R198	1-249-433-11	CARBON	22K 5% 1/6W
R142	1-247-700-11	CARBON	100 5% 1/4W	R199	1-249-429-11	CARBON	10K 5% 1/6W
R143	1-249-421-11	CARBON	2.2K 5% 1/6W	R201	1-247-837-00	CARBON	1.8K 5% 1/6W

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Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
R202	1-247-857-00	CARBON	12K 5% 1/6W	R316	1-247-833-00	CARBON	1.2K 5% 1/6W
R203	1-249-429-11	CARBON	10K 5% 1/6W	R317	1-249-417-11	CARBON	1K 5% 1/6W
R204	1-215-457-00	METAL	33K 1% 1/6W	R318	1-249-422-11	CARBON	2.7K 5% 1/6W
R205	1-215-457-00	METAL	33K 1% 1/6W	R319	1-249-422-11	CARBON	2.7K 5% 1/6W
R206	1-249-433-11	CARBON	22K 5% 1/6W	R320	1-249-422-11	CARBON	2.7K 5% 1/6W
R208	1-247-883-00	CARBON	150K 5% 1/6W	R321	1-247-899-00	CARBON	680K 5% 1/6W
R209	1-247-883-00	CARBON	150K 5% 1/6W	R322	1-249-434-11	CARBON	27K 5% 1/6W
R211	1-249-417-11	CARBON	1K 5% 1/6W	R323	1-247-145-00	CARBON	3.9K 5% 1/4W
R215	1-247-883-00	CARBON	150K 5% 1/6W	R324	1-247-706-11	CARBON	330 5% 1/4W
R216	1-247-815-00	CARBON	220 5% 1/6W	R325	1-249-433-11	CARBON	22K 5% 1/6W
R218	1-247-845-00	CARBON	3.9K 5% 1/6W	R326	1-247-843-00	CARBON	3.3K 5% 1/6W
R219	1-247-817-00	CARBON	270 5% 1/6W	R327	1-247-845-00	CARBON	3.9K 5% 1/6W
R220	1-247-801-00	CARBON	56 5% 1/6W	R328	1-247-829-00	CARBON	820 5% 1/6W
R221	1-247-822-00	CARBON	430 5% 1/6W	R329	1-249-421-11	CARBON	2.2K 5% 1/6W
R223	1-247-821-00	CARBON	390 5% 1/6W	R331	1-249-405-11	CARBON	100 5% 1/6W
R224	1-247-830-00	CARBON	910 5% 1/6W	R332	1-247-821-00	CARBON	390 5% 1/6W
R225	1-249-415-11	CARBON	680 5% 1/6W	R333	1-249-433-11	CARBON	22K 5% 1/6W
R226	1-249-405-11	CARBON	100 5% 1/6W	R334	1-247-829-00	CARBON	820 5% 1/6W
R227	1-249-415-11	CARBON	680 5% 1/6W	R335	1-249-417-11	CARBON	1K 5% 1/6W
R228	1-247-833-00	CARBON	1.2K 5% 1/6W	R336	1-247-897-00	CARBON	560K 5% 1/6W
R229	1-247-803-00	CARBON	68 5% 1/6W	R337	1-247-895-00	CARBON	470K 5% 1/6W
R230	1-247-843-00	CARBON	3.3K 5% 1/6W	R339	1-247-819-00	CARBON	330 5% 1/6W
R231	1-247-846-00	CARBON	4.3K 5% 1/6W	R340	1-249-437-11	CARBON	47K 5% 1/6W
R232	1-247-851-00	CARBON	6.8K 5% 1/6W	R341	1-247-857-00	CARBON	12K 5% 1/6W
R234	1-249-421-11	CARBON	2.2K 5% 1/6W	R342	1-249-429-11	CARBON	10K 5% 1/6W
R235	1-247-819-00	CARBON	330 5% 1/6W	R343	1-247-696-11	CARBON	47 5% 1/4W
R236	1-247-700-11	CARBON	100 5% 1/4W	R345	1-247-725-11	CARBON	10K 5% 1/4W
R237	1-247-795-00	CARBON	33 5% 1/6W	R346	1-247-704-11	CARBON	220 5% 1/4W
R238	1-249-425-11	CARBON	4.7K 5% 1/6W	R348	1-247-815-00	CARBON	220 5% 1/6W
R239	1-247-819-00	CARBON	330 5% 1/6W	R349	1-249-437-11	CARBON	47K 5% 1/6W
R241	1-212-367-00	METAL OXIDE	3.9 5% 1W F	R350	1-247-815-00	CARBON	220 5% 1/6W
R242	1-206-495-00	METAL OXIDE	2.2 5% 3W F	R351	1-247-829-00	CARBON	820 5% 1/6W
R243	1-247-821-00	CARBON	390 5% 1/6W	R352	1-247-725-11	CARBON	10K 5% 1/4W
R244	1-247-704-11	CARBON	220 5% 1/4W	R353	1-249-433-11	CARBON	22K 5% 1/6W
R245	1-249-417-11	CARBON	1K 5% 1/6W	R354	1-246-537-00	CARBON	470K 5% 1/4W
R250	1-206-453-00	METAL OXIDE	3.9 5% 2W F	R356	1-246-517-00	CARBON	68K 5% 1/4W
R251	1-247-706-11	CARBON	330 5% 1/4W	R357	1-247-903-00	CARBON	1M 5% 1/6W
R300	1-249-405-11	CARBON	100 5% 1/6W	R359	1-249-415-11	CARBON	680 5% 1/6W
R301	1-249-435-11	CARBON	33K 5% 1/6W	R360	1-249-415-11	CARBON	680 5% 1/6W
R302	1-249-434-11	CARBON	27K 5% 1/6W	R361	1-247-823-00	CARBON	470 5% 1/6W
R303	1-247-833-00	CARBON	1.2K 5% 1/6W	R362	1-247-833-00	CARBON	1.2K 5% 1/6W
R304	1-247-823-00	CARBON	470 5% 1/6W	R363	1-247-819-00	CARBON	330 5% 1/6W
R305	1-247-833-00	CARBON	1.2K 5% 1/6W	R364	1-247-833-00	CARBON	1.2K 5% 1/6W
R306	1-249-419-11	CARBON	1.5K 5% 1/6W	R365	1-247-837-00	CARBON	1.8K 5% 1/6W
R307	1-249-415-11	CARBON	680 5% 1/6W	R366	1-249-422-11	CARBON	2.7K 5% 1/6W
R308	1-249-415-11	CARBON	680 5% 1/6W	R367	1-249-425-11	CARBON	4.7K 5% 1/6W
R309	1-249-415-11	CARBON	680 5% 1/6W	R377	1-247-823-00	CARBON	470 5% 1/6W
R310	1-249-415-11	CARBON	680 5% 1/6W	R380	1-249-441-11	CARBON	100K 5% 1/6W
R311	1-247-833-00	CARBON	1.2K 5% 1/6W	R381	1-249-441-11	CARBON	100K 5% 1/6W
R312	1-247-833-00	CARBON	1.2K 5% 1/6W	R382	1-249-429-11	CARBON	10K 5% 1/6W
R313	1-249-419-11	CARBON	1.5K 5% 1/6W	R390	1-247-903-00	CARBON	1M 5% 1/6W
R314	1-249-419-11	CARBON	1.5K 5% 1/6W	R401	1-247-704-11	CARBON	220 5% 1/4W
R315	1-247-833-00	CARBON	1.2K 5% 1/6W	R402	1-247-704-11	CARBON	220 5% 1/4W

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Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
R403	1-247-704-11	CARBON	220 5% 1/4W	R503	1-249-417-11	CARBON	1K 5% 1/6W
R404	1-247-849-00	CARBON	5.6K 5% 1/6W	R505	1-247-845-00	CARBON	3.9K 5% 1/6W
R405	1-249-421-11	CARBON	2.2K 5% 1/6W	R506	1-247-845-00	CARBON	3.9K 5% 1/6W
R406	1-247-815-00	CARBON	220 5% 1/6W	R508	1-247-869-00	CARBON	39K 5% 1/6W
R408	1-249-421-11	CARBON	2.2K 5% 1/6W	R519	1-247-833-00	CARBON	1.2K 5% 1/6W
R410	1-247-799-00	CARBON	47 5% 1/6W	R520	1-249-429-11	CARBON	10K 5% 1/6W
R411	1-247-819-00	CARBON	330 5% 1/6W	R521	1-247-859-00	CARBON	15K 5% 1/6W
R412	1-249-417-11	CARBON	1K 5% 1/6W	R522	1-249-429-11	CARBON	10K 5% 1/6W
R414	1-249-469-11	CARBON	100K 5% 1/4W	R523	1-247-895-00	CARBON	470K 5% 1/6W
R416	1-246-523-00	CARBON	120K 5% 1/4W	R598	1-247-805-00	CARBON	82 5% 1/6W
R417	1-247-163-00	CARBON	22K 5% 1/4W	R599	1-214-775-00	METAL	82K 1% 1/4W
R418	1-249-429-11	CARBON	10K 5% 1/6W	<u>VARIABLE RESISTOR</u>			
R419	1-249-469-11	CARBON	100K 5% 1/4W	RV201	1-228-723-00	RES, ADJ, CERAMIC CARBON	4.7K
R420	1-249-425-11	CARBON	4.7K 5% 1/6W	RV202	1-228-723-00	RES, ADJ, CERAMIC CARBON	4.7K
R422	1-247-163-00	CARBON	22K 5% 1/4W	RV301	1-228-720-00	RES, ADJ, CERAMIC CARBON	1K
R423	1-249-437-11	CARBON	47K 5% 1/6W	RV302	1-228-719-00	RES, ADJ, CERAMIC CARBON	470
R424	1-247-713-11	CARBON	1K 5% 1/4W	RV303	1-228-724-00	RES, ADJ, CERAMIC CARBON	10K
R425	1-247-805-00	CARBON	82 5% 1/6W	RV304	1-228-724-00	RES, ADJ, CERAMIC CARBON	10K
R426	1-247-177-00	CARBON	82K 5% 1/4W	RV401	1-228-724-00	RES, ADJ, CERAMIC CARBON	10K
R427	1-214-761-00	METAL	22K 1% 1/4W	RV402	1-228-724-00	RES, ADJ, CERAMIC CARBON	10K
R428	1-247-885-00	CARBON	180K 5% 1/6W	RV403	1-228-723-00	RES, ADJ, CERAMIC CARBON	4.7K
R430	1-247-869-00	CARBON	39K 5% 1/6W	RV404	1-224-487-00	RES, ADJ, METAL FILM	220
R431	1-214-753-00	METAL	10K 1% 1/4W	RV406	1-228-721-00	RES, ADJ, CERAMIC CARBON	2.2K
R433	1-249-425-11	CARBON	4.7K 5% 1/6W	RV407	1-228-724-00	RES, ADJ, CERAMIC CARBON	10K
R435	1-247-704-11	CARBON	220 5% 1/4W	RV408	1-228-724-00	RES, ADJ, CERAMIC CARBON	10K
R436	1-247-704-11	CARBON	220 5% 1/4W	RV410	1-224-487-00	RES, ADJ, METAL FILM	220
R437	1-247-145-00	CARBON	3.9K 5% 1/4W	<u>TRANSFORMER</u>			
R438	1-214-915-00	METAL	120K 1% 1/2W	T201	1-404-541-11	COIL	
R441	1-247-869-00	CARBON	39K 5% 1/6W	T202	1-404-467-00	COIL, VIF	
R442	1-247-848-00	CARBON	5.1K 5% 1/6W	T203	1-404-467-00	COIL, VIF	
R451	1-247-815-00	CARBON	220 5% 1/6W	T204	1-404-505-00	COIL	
R453	1-247-799-00	CARBON	47 5% 1/6W	T205	1-404-489-00	COIL	
R454	1-247-819-00	CARBON	330 5% 1/6W	T301	1-425-786-00	TRANSFORMER, BANDPASS(BPT)	
R456	1-247-799-00	CARBON	47 5% 1/6W	<u>TUNER</u>			
R458	1-247-696-11	CARBON	47 5% 1/4W	TU101A	1-463-470-00	TUNER, ET (BT-896)	(Serial No.2,000,001 and later)
R460	1-249-425-11	CARBON	4.7K 5% 1/6W	<u>CRYSTAL</u>			
R461	1-247-815-00	CARBON	220 5% 1/6W	X101	1-567-192-11	OSCILLATOR, CERAMIC	
R462	1-247-799-00	CARBON	47 5% 1/6W	X102	1-567-254-11	OSCILLATOR, CERAMIC	
R463	1-247-819-00	CARBON	330 5% 1/6W	X301	1-527-722-00	OSCILLATOR, CRYSTAL	
R465	1-247-803-00	CARBON	68 5% 1/6W	*****			
R470	1-247-899-00	CARBON	680K 5% 1/6W	*1-615-623-11	CR BOARD	*****	
R471	1-249-429-11	CARBON	10K 5% 1/6W	1-526-812-11	SOCKET, CRT		
R472	1-247-891-00	CARBON	330K 5% 1/6W	1-556-880-51	LEAD ASSY, HIGH-VOLTAGE		
R474	1-247-696-11	CARBON	47 5% 1/4W	*4-026-251-00	SPACER, INSULATING		
R479	1-249-425-11	CARBON	4.7K 5% 1/6W				
R486	1-247-815-00	CARBON	220 5% 1/6W				
R487	1-247-804-00	CARBON	75 5% 1/6W				
R488	1-247-717-11	CARBON	2.2K 5% 1/4W				
R490	1-247-163-00	CARBON	22K 5% 1/4W				
R493	1-249-433-11	CARBON	22K 5% 1/6W				
R494	1-249-409-11	CARBON	220 5% 1/6W F				
R495	1-249-409-11	CARBON	220 5% 1/6W F				
R496	1-249-409-11	CARBON	220 5% 1/6W F				

NOTE:

The components identified by shading and mark A are critical for safety. Replace only with part number specified.

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CG

Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
<u>CAPACITOR</u>				<u>CAPACITOR</u>			
C702	1-123-028-00	ELECT	2.2MF	350V	*1-615-624-11	CG BOARD	*****
C703	1-102-050-00	CERAMIC	0.01MF	500V	1-526-812-11	SOCKET, CRT	
C704	1-102-155-00	CERAMIC	330PF	20% 2KV	1-556-880-51	LEAD ASSY, HIGH-VOLTAGE	
C705	1-102-155-00	CERAMIC	330PF	20% 2KV	*4-026-251-00	SPACER, INSULATING	
C706	1-102-155-00	CERAMIC	330PF	20% 2KV	<u>CAPACITOR</u>		
C707	1-102-267-00	CERAMIC	0.0068MF	500V	C722	1-123-028-00	ELECT 2.2MF 350V
C708	1-102-121-00	CERAMIC	0.0022MF	10% 50V	C723	1-102-050-00	CERAMIC 0.01MF 500V
<u>CONNECTOR</u>				C724	1-102-155-00	CERAMIC 330PF 20% 2KV	
CR1	*1-564-443-11	PLUG, CONNECTOR (2.5MM) 7P		C725	1-102-155-00	CERAMIC 330PF 20% 2KV	
CR2	*1-564-354-00	PLUG, CONNECTOR (2.5MM) 3P		C726	1-102-155-00	CERAMIC 330PF 20% 2KV	
CR3	*1-508-786-00	2P PLUG (M)		C727	1-102-267-00	CERAMIC 0.0068MF 500V	
CR4	*1-508-784-00	1P PLUG		C728	1-102-121-00	CERAMIC 0.0022MF 10% 50V	
CR5	*1-508-784-00	1P PLUG		<u>CONNECTOR</u>			
CR6	*1-508-784-00	1P PLUG		CG1	*1-564-443-11	PLUG, CONNECTOR (2.5MM) 7P	
<u>DIODE</u>				CG2	*1-564-354-00	PLUG, CONNECTOR (2.5MM) 3P	
D701	8-719-911-19	DIODE 1SS119		CG3	*1-508-786-00	2P PLUG (M)	
<u>COIL</u>				CG4	*1-508-784-00	1P PLUG	
L701	1-407-701-00	MICRO INDUCTOR 47UH		CG5	*1-508-784-00	1P PLUG	
L702	1-407-364-00	COIL, SPOOK CHOKE 3.3UH		CG6	*1-508-784-00	1P PLUG	
L703	1-407-364-00	COIL, SPOOK CHOKE 3.3UH		<u>DIODE</u>			
L704	1-407-694-00	MICRO INDUCTOR 12UH		D721	8-719-911-19	DIODE 1SS119	
<u>NEON LAMP</u>				<u>COIL</u>			
NL701	1-519-013-13	DISCHARGE TUBE		L721	1-407-701-00	MICRO INDUCTOR 47UH	
<u>TRANSISTOR</u>				L722	1-407-364-00	COIL, SPOOK CHOKE 3.3UH	
Q701	8-729-326-11	TRANSISTOR 2SC2611		L723	1-407-364-00	COIL, SPOOK CHOKE 3.3UH	
<u>RESISTOR</u>				L724	1-407-694-00	MICRO INDUCTOR 12UH	
R701	1-247-700-11	CARBON	100 5% 1/4W	<u>NEON LAMP</u>			
R702	1-216-487-11	METAL OXIDE	12K 5% 3W F	NL721	1-519-013-13	DISCHARGE TUBE	
R703	1-216-487-11	METAL OXIDE	12K 5% 3W F	<u>TRANSISTOR</u>			
R704	1-247-700-11	CARBON	100 5% 1/4W	Q721	8-729-326-11	TRANSISTOR 2SC2611	
R705	1-202-836-00	SOLID	56K 1/2W	<u>RESISTOR</u>			
R706	1-202-557-00	SOLID	220 5% 1/2W	R721	1-247-700-11	CARBON	100 5% 1/4W
R707	1-202-823-51	SOLID	2.7K 1/2W	R722	1-216-487-11	METAL OXIDE	12K 5% 3W F
R708	1-202-847-00	SOLID	560K 1/2W	R723	1-216-487-11	METAL OXIDE	12K 5% 3W F
R709	1-202-842-51	SOLID	220K 1/2W	R724	1-247-700-11	CARBON	100 5% 1/4W
R710	1-202-844-00	SOLID	330K 1/2W	R725	1-202-836-00	SOLID	56K 1/2W
R711	1-202-833-11	SOLID	18K 1/2W	R726	1-202-557-00	SOLID	220 5% 1/2W
R712	1-202-557-00	SOLID	220 10% 1/2W	R727	1-202-823-51	SOLID	2.7K 1/2W
<u>SPARK GAP</u>				R728	1-202-847-00	SOLID	560K 1/2W
SG701	1-519-063-XX	DISCHARGING GAP		R729	1-202-842-51	SOLID	220K 1/2W
				R730	1-202-844-00	SOLID	330K 1/2W
				R731	1-202-833-11	SOLID	18K 1/2W
				R732	1-202-557-00	SOLID	220 10% 1/2W

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CB

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Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
SPARK GAP				R748	1-202-847-00	SOLID 560K	1/2W
SG721	1-519-063-XX	DISCHARGING GAP		R749	1-202-842-51	SOLID 220K	1/2W
*****				R750	1-202-844-00	SOLID 330K	1/2W
				R751	1-202-833-11	SOLID 18K	1/2W
				R752	1-202-557-00	SOLID 220 10%	1/2W
*1-615-625-11 CB BOARD				SPARK GAP			
*****				SG741	1-519-063-XX	DISCHARGING GAP	
1-526-812-11 SOCKET, CRT				*****			
1-556-880-51 LEAD ASSY, HIGH-VOLTAGE							
*4-026-251-00 SPACER, INSULATING							
CAPACITOR							
C742	1-123-028-00	ELECT 2.2MF	350V	*A-1340-804-A D BOARD, COMPLETE			
C743	1-102-050-00	CERAMIC 0.01MF	500V	(Serial No.2,000,001 and later)			
C744	1-102-155-00	CERAMIC 330PF	20% 2KV	*****			
C745	1-102-155-00	CERAMIC 330PF	20% 2KV	*A-1340-844-A D BOARD, COMPLETE			
C746	1-102-155-00	CERAMIC 330PF	20% 2KV	(Serial No.7,000,001 and later)			

C747	1-102-267-00	CERAMIC 0.0068MF	500V	*2-261-207-00 HEAT SINK, AF OUT			
C748	1-102-121-00	CERAMIC 0.0022MF	10% 50V	*4-348-704-00 HEAT SINK (A)			
CONNECTOR				CAPACITOR			
CB1	*1-564-443-11	PLUG, CONNECTOR (2.5MM) 7P		C6001	1-123-318-00	ELECT 33MF	20% 16V
CB2	*1-564-354-00	PLUG, CONNECTOR (2.5MM) 3P		C6002	1-123-318-00	ELECT 33MF	20% 16V
CB3	*1-508-786-00	2P PLUG (M)		C6004	1-123-332-00	ELECT 47MF	20% 16V
CB4	*1-508-784-00	1P PLUG		C6007	1-106-172-00	MYLAR 0.001MF	5% 50V
CB5	*1-508-784-00	1P PLUG		C6008	1-123-336-00	ELECT 470MF	20% 25V
CB6	*1-508-784-00	1P PLUG		C6009	1-123-380-00	ELECT 1MF	20% 50V
DIODE				C6010	1-108-587-00	MYLAR 0.022MF	5% 50V
D741	8-719-911-19	DIODE 1SS119		C6011	1-123-336-00	ELECT 470MF	20% 25V
COIL				C6012	1-108-794-91	MYLAR 0.0015MF	5% 50V
L741	1-407-701-00	MICRO INDUCTOR 47UH		C6013	1-123-333-00	ELECT 100MF	20% 16V
L742	1-407-364-00	COIL, SPOOK CHOKE 3.3UH		C6014	1-123-356-00	ELECT 10MF	20% 16V
L743	1-407-364-00	COIL, SPOOK CHOKE 3.3UH		C6015	1-123-321-00	ELECT 220MF	20% 16V
L744	1-407-694-00	MICRO INDUCTOR 12UH		C6017	1-123-333-00	ELECT 100MF	20% 16V
NEON LAMP				C6018	1-123-356-00	ELECT 10MF	20% 16V
NL741	1-519-013-13	DISCHARGE TUBE		C6019	1-123-333-00	ELECT 100MF	20% 16V
TRANSISTOR				C6020	1-123-356-00	ELECT 10MF	20% 16V
Q741	8-729-326-11	TRANSISTOR 2SC2611		C6021	1-123-333-00	ELECT 100MF	20% 16V
RESISTOR				C6022	1-123-356-00	ELECT 10MF	20% 16V
R741	1-247-700-11	CARBON 100 5% 1/4W		C6023	1-123-356-00	ELECT 10MF	20% 25V
R742	1-216-487-11	METAL OXIDE 12K 5% 3W	F	C6024	1-123-380-00	ELECT 1MF	20% 50V
R743	1-216-487-11	METAL OXIDE 12K 5% 3W	F	C6025	1-108-812-91	MYLAR 0.047MF	5% 50V
R744	1-247-700-11	CARBON 100 5% 1/4W		C6026	1-108-794-91	MYLAR 0.0015MF	5% 50V
R745	1-202-836-00	SOLID 56K	1/2W	C6028	1-123-356-00	ELECT 10MF	20% 25V
R746	1-202-557-00	SOLID 220 5% 1/2W		C6029	1-123-356-00	ELECT 10MF	20% 16V
R747	1-202-823-51	SOLID 2.7K	1/2W	C6031	1-123-333-00	ELECT 100MF	20% 25V
				C6032	1-123-332-00	ELECT 47MF	20% 25V
				C6033	1-108-614-91	MYLAR 0.001MF	10% 100V
				C6034	1-123-333-00	ELECT 100MF	20% 25V
				C6035	1-123-332-00	ELECT 47MF	20% 25V
				C6036	1-108-614-91	MYLAR 0.001MF	10% 100V
				C6037	1-123-333-00	ELECT 100MF	20% 25V
				C6038	1-123-332-00	ELECT 47MF	20% 25V
				C6039	1-108-614-91	MYLAR 0.001MF	10% 100V

NOTE:

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Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
R6016	1-215-441-00	METAL	6.8K 1% 1/6W	R6087	1-249-429-11	CARBON	10K 5% 1/6W
R6017	1-215-445-00	METAL	10K 1% 1/6W	R6088	1-249-440-11	CARBON	82K 5% 1/6W
R6018	1-215-435-00	METAL	3.9K 1% 1/6W	R6089	1-215-445-00	METAL	10K 1% 1/6W
R6019	1-215-419-00	METAL	820 1% 1/6W	R6090	1-215-433-00	METAL	3.3K 1% 1/6W
R6020	1-215-439-00	METAL	5.6K 1% 1/6W	R6091	1-215-435-00	METAL	3.9K 1% 1/6W
R6021	1-215-441-00	METAL	6.8K 1% 1/6W	R6092	1-215-441-00	METAL	6.8K 1% 1/6W
R6022	1-215-439-00	METAL	5.6K 1% 1/6W	R6093	1-215-435-00	METAL	3.9K 1% 1/6W
R6023	1-215-421-00	METAL	1K 1% 1/6W	R6094	1-215-425-00	METAL	1.5K 1% 1/6W
R6024	1-215-405-00	METAL	220 1% 1/6W	R6095	1-215-441-00	METAL	6.8K 1% 1/6W
R6025	1-215-425-00	METAL	1.5K 1% 1/6W	R6096	1-215-439-00	METAL	5.6K 1% 1/6W
R6026	1-215-425-00	METAL	1.5K 1% 1/6W	R6097	1-215-439-00	METAL	5.6K 1% 1/6W
R6027	1-249-417-11	CARBON	1K 5% 1/6W	R6098	1-215-439-00	METAL	5.6K 1% 1/6W
R6028	1-215-421-00	METAL	1K 1% 1/6W	R6099	1-215-445-00	METAL	10K 1% 1/6W
R6029	1-215-439-00	METAL	5.6K 1% 1/6W	R6100	1-215-445-00	METAL	10K 1% 1/6W
R6030	1-215-441-00	METAL	6.8K 1% 1/6W	R6101	1-215-399-00	METAL	120 1% 1/6W
R6031	1-215-439-00	METAL	5.6K 1% 1/6W	R6102	1-215-399-00	METAL	120 1% 1/6W
R6032	1-215-421-00	METAL	1K 1% 1/6W	R6103	1-215-421-00	METAL	1K 1% 1/6W
R6033	1-215-419-00	METAL	820 1% 1/6W	R6104	1-215-421-00	METAL	1K 1% 1/6W
R6034	1-249-429-11	CARBON	10K 5% 1/6W	R6105	1-249-421-11	CARBON	2.2K 5% 1/6W
R6035	1-249-429-11	CARBON	10K 5% 1/6W	R6106	1-249-421-11	CARBON	2.2K 5% 1/6W
R6036	1-249-417-11	CARBON	1K 5% 1/6W	R6107	1-213-130-00	METAL OXIDE	82 5% 1W F
R6037	1-249-429-11	CARBON	10K 5% 1/6W	R6108	1-212-360-00	METAL OXIDE	1 5% 1W F
R6038	1-249-429-11	CARBON	10K 5% 1/6W	R6109	1-206-447-00	METAL OXIDE	2.2 5% 2W F
R6039	1-249-429-11	CARBON	10K 5% 1/6W	R6110	1-246-981-00	CARBON	4.7 5% 1/8W F
R6040	1-249-417-11	CARBON	1K 5% 1/6W	R6111	1-206-447-00	METAL OXIDE	2.2 5% 2W F
R6048	1-249-429-11	CARBON	10K 5% 1/6W	R6112	1-213-130-00	METAL OXIDE	82 5% 1W F
R6056	1-247-849-00	CARBON	5.6K 5% 1/6W	R6113	1-246-981-00	CARBON	4.7 5% 1/8W F
R6057	1-249-415-11	CARBON	680 5% 1/6W	R6114	1-212-360-00	METAL OXIDE	1 5% 1W F
R6058	1-249-434-11	CARBON	27K 5% 1/6W	R6115	1-249-421-11	CARBON	2.2K 5% 1/6W
R6059	1-247-823-00	CARBON	470 5% 1/6W	R6116	1-249-421-11	CARBON	2.2K 5% 1/6W
R6060	1-247-887-00	CARBON	220K 5% 1/6W	R6117	1-215-421-00	METAL	1K 1% 1/6W
R6063	1-249-434-11	CARBON	27K 5% 1/6W	R6118	1-215-421-00	METAL	1K 1% 1/6W
R6064	1-247-823-00	CARBON	470 5% 1/6W	R6119	1-215-399-00	METAL	120 1% 1/6W
R6065	1-247-887-00	CARBON	220K 5% 1/6W	R6120	1-215-399-00	METAL	120 1% 1/6W
R6068	1-249-429-11	CARBON	10K 5% 1/6W	R6121	1-215-399-00	METAL	120 1% 1/6W
R6069	1-249-429-11	CARBON	10K 5% 1/6W	R6122	1-215-399-00	METAL	120 1% 1/6W
R6070	1-215-421-00	METAL	1K 1% 1/6W	R6123	1-215-421-00	METAL	1K 1% 1/6W
R6071	1-215-461-00	METAL	47K 1% 1/6W	R6124	1-215-373-31	METAL	10 1% 1/6W
R6072	1-249-435-11	CARBON	33K 5% 1/6W	R6125	1-215-373-31	METAL	10 1% 1/6W
R6073	1-215-445-00	METAL	10K 1% 1/6W	R6126	1-215-373-31	METAL	10 1% 1/6W
R6074	1-249-440-11	CARBON	82K 5% 1/6W	R6127	1-215-373-31	METAL	10 1% 1/6W
R6075	1-215-435-00	METAL	3.9K 1% 1/6W	R6128	1-215-429-00	METAL	2.2K 1% 1/6W
R6076	1-215-439-00	METAL	5.6K 1% 1/6W	R6129	1-249-405-11	CARBON	100 5% 1/6W
R6077	1-249-417-11	CARBON	1K 5% 1/6W	R6130	1-249-405-11	CARBON	100 5% 1/6W
R6078	1-249-429-11	CARBON	10K 5% 1/6W	R6131	1-247-819-00	CARBON	330 5% 1/6W
R6079	1-249-429-11	CARBON	10K 5% 1/6W	R6132	1-213-127-00	METAL OXIDE	47 5% 1W F
R6080	1-215-421-00	METAL	1K 1% 1/6W	R6134	1-215-399-00	METAL	120 1% 1/6W
R6081	1-215-461-00	METAL	47K 1% 1/6W	R6135	1-215-399-00	METAL	120 1% 1/6W
R6082	1-249-405-11	CARBON	100 5% 1/6W	R6136	1-215-421-00	METAL	1K 1% 1/6W
R6083	1-249-405-11	CARBON	100 5% 1/6W	R6137	1-215-421-00	METAL	1K 1% 1/6W
R6084	1-249-429-11	CARBON	10K 5% 1/6W	R6138	1-212-360-00	METAL OXIDE	1 5% 1W F
R6085	1-249-429-11	CARBON	10K 5% 1/6W	R6139	1-213-130-00	METAL OXIDE	82 5% 1W F
R6086	1-249-429-11	CARBON	10K 5% 1/6W	R6140	1-206-447-00	METAL OXIDE	2.2 5% 2W F

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Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
R6141	1-249-421-11	CARBON	2.2K 5% 1/6W	R6316	1-249-429-11	CARBON	10K 5% 1/6W
R6142	1-249-421-11	CARBON	2.2K 5% 1/6W	R6317	1-249-441-11	CARBON	100K 5% 1/6W
R6143	1-246-981-00	CARBON	4.7 5% 1/8W F	R6318	1-249-429-11	CARBON	10K 5% 1/6W
R6144	1-246-981-00	CARBON	4.7 5% 1/8W F	R6320	1-249-429-11	CARBON	10K 5% 1/6W
R6145	1-206-447-00	METAL OXIDE	2.2 5% 2W F	R6321	1-249-417-11	CARBON	1K 5% 1/6W
R6146	1-213-130-00	METAL OXIDE	82 5% 1W F	R6323	1-249-417-11	CARBON	1K 5% 1/6W
R6147	1-212-360-00	METAL OXIDE	1 5% 1W F	R6324	1-215-421-00	METAL	1K 1% 1/6W
R6148	1-215-421-00	METAL	1K 1% 1/6W	VARIABLE RESISTOR			
R6149	1-215-421-00	METAL	1K 1% 1/6W	RV6001	1-230-814-11	RES, VAR, CARBON	10KX4
R6150	1-215-399-00	METAL	120 1% 1/6W	RV6002	1-230-814-11	RES, VAR, CARBON	10KX4
R6151	1-215-399-00	METAL	120 1% 1/6W	RV6003	1-230-814-11	RES, VAR, CARBON	10KX4
R6152	1-249-421-11	CARBON	2.2K 5% 1/6W	RV6004	1-230-814-11	RES, VAR, CARBON	10KX4
R6153	1-249-421-11	CARBON	2.2K 5% 1/6W	RV6005	1-228-859-00	RES, VAR, CARBON	10K
R6154	1-215-445-00	METAL	10K 1% 1/6W	RV6006	1-228-859-00	RES, VAR, CARBON	10K
R6155	1-249-435-11	CARBON	33K 5% 1/6W	RV6007	1-230-631-11	RES, ADJ, CARBON	22K
R6156	1-249-405-11	CARBON	100 5% 1/6W	RV6008	1-230-630-11	RES, ADJ, CARBON	10K
R6157	1-249-405-11	CARBON	100 5% 1/6W	RV6009	1-230-631-11	RES, ADJ, CARBON	22K
R6176	1-215-437-00	METAL	4.7K 1% 1/6W	RV6010	1-230-631-11	RES, ADJ, CARBON	22K
R6201	1-247-899-00	CARBON	680K 5% 1/6W	RV6011	1-230-631-11	RES, ADJ, CARBON	22K
R6202	1-247-891-00	CARBON	330K 5% 1/6W	RV6012	1-230-631-11	RES, ADJ, CARBON	22K
R6203	1-249-417-11	CARBON	1K 5% 1/6W	RV6013	1-230-631-11	RES, ADJ, CARBON	22K
R6204	1-249-417-11	CARBON	1K 5% 1/6W	RV6014	1-230-630-11	RES, ADJ, CARBON	10K
R6205	1-249-405-11	CARBON	100 5% 1/6W	RV6015	1-230-631-11	RES, ADJ, CARBON	22K
R6206	1-249-417-11	CARBON	1K 5% 1/6W	RV6016	1-230-631-11	RES, ADJ, CARBON	22K
R6207	1-249-417-11	CARBON	1K 5% 1/6W	RV6017	1-230-631-11	RES, ADJ, CARBON	22K
R6208	1-249-405-11	CARBON	100 5% 1/6W	RV6018	1-230-631-11	RES, ADJ, CARBON	22K
R6210	1-249-429-11	CARBON	10K 5% 1/6W	RV6019	1-230-631-11	RES, ADJ, CARBON	22K
R6211	1-247-853-00	CARBON	8.2K 5% 1/6W	RV6020	1-230-631-11	RES, ADJ, CARBON	22K
R6212	1-249-405-11	CARBON	100 5% 1/6W	RV6021	1-230-631-11	RES, ADJ, CARBON	22K
R6213	1-249-405-11	CARBON	100 5% 1/6W	RV6022	1-230-631-11	RES, ADJ, CARBON	22K
R6214	1-249-429-11	CARBON	10K 5% 1/6W	RV6023	1-230-631-11	RES, ADJ, CARBON	22K
R6215	1-247-853-00	CARBON	8.2K 5% 1/6W	RV6024	1-230-628-11	RES, ADJ, CARBON	2.2K
R6216	1-215-421-00	METAL	1K 1% 1/6W	RV6025	1-230-631-11	RES, ADJ, CARBON	22K
R6217	1-215-439-00	METAL	5.6K 1% 1/6W	RV6026	1-230-631-11	RES, ADJ, CARBON	22K
R6218	1-215-436-00	METAL	4.3K 1% 1/6W	RV6027	1-230-631-11	RES, ADJ, CARBON	22K
R6219	1-215-415-00	METAL	560 1% 1/6W	RV6028	1-230-631-11	RES, ADJ, CARBON	22K
R6220	1-215-421-00	METAL	1K 1% 1/6W	RV6029	1-230-631-11	RES, ADJ, CARBON	22K
R6221	1-215-441-00	METAL	6.8K 1% 1/6W	RV6030	1-230-631-11	RES, ADJ, CARBON	22K
R6301	1-249-441-11	CARBON	100K 5% 1/6W	RV6031	1-230-631-11	RES, ADJ, CARBON	22K
R6302	1-249-441-11	CARBON	100K 5% 1/6W	RV6032	1-230-631-11	RES, ADJ, CARBON	22K
R6303	1-249-429-11	CARBON	10K 5% 1/6W	RV6033	1-230-628-11	RES, ADJ, CARBON	2.2K
R6304	1-215-413-00	METAL	470 1% 1/6W	RV6034	1-230-633-41	RES, ADJ, CARBON	47K
R6305	1-249-405-11	CARBON	100 5% 1/6W	RV6035	1-230-633-41	RES, ADJ, CARBON	47K
R6306	1-247-893-00	CARBON	390K 5% 1/6W	RV6036	1-230-631-11	RES, ADJ, CARBON	22K
R6307	1-249-405-11	CARBON	100 5% 1/6W	RV6038	1-230-631-11	RES, ADJ, CARBON	22K
R6308	1-215-411-00	METAL	390 1% 1/6W	RV6039	1-230-631-11	RES, ADJ, CARBON	22K
R6309	1-215-403-00	METAL	180 1% 1/6W	RV6040	1-230-631-11	RES, ADJ, CARBON	22K
R6310	1-215-403-00	METAL	180 1% 1/6W	RV6041	1-230-631-11	RES, ADJ, CARBON	22K
R6311	1-249-429-11	CARBON	10K 5% 1/6W	RV6042	1-230-631-11	RES, ADJ, CARBON	22K
R6312	1-249-417-11	CARBON	1K 5% 1/6W	RV6043	1-230-631-11	RES, ADJ, CARBON	22K
R6313	1-249-429-11	CARBON	10K 5% 1/6W	RV6044	1-230-631-11	RES, ADJ, CARBON	22K
R6314	1-249-417-11	CARBON	1K 5% 1/6W	RV6045	1-230-631-11	RES, ADJ, CARBON	22K
R6315	1-249-429-11	CARBON	10K 5% 1/6W				

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Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
RV6046	1-230-631-11	RES, ADJ, CARBON 22K		C5027	1-123-380-00	ELECT 1MF 20% 50V	
RV6047	1-230-631-11	RES, ADJ, CARBON 22K		C5028	1-106-196-00	MYLAR 0.01MF 10% 100V	
RV6048	1-230-631-11	RES, ADJ, CARBON 22K		C5029	1-123-379-00	ELECT 0.47MF 20% 50V	
RV6049	1-230-631-11	RES, ADJ, CARBON 22K		C5030	1-136-173-00	FILM 0.47MF 5% 50V	
RV6050	1-230-631-11	RES, ADJ, CARBON 22K		C5031	1-108-812-91	MYLAR 0.047MF 5% 50V	
RV6051	1-230-631-11	RES, ADJ, CARBON 22K		C5032	1-123-929-00	ELECT 1MF 160V	
SWITCH				C5033	1-108-579-00	MYLAR 0.01MF 5% 50V	
SW6002	1-553-716-00	SWITCH, SLIDE		C5034	1-102-820-00	CERAMIC 330PF 5% 50V	
SW6101	1-554-330-00	SWITCH, ROTARY		C5035	1-106-208-00	MYLAR 0.033MF 10% 100V	
				C5036	1-102-820-00	CERAMIC 330PF 5% 50V	
*****				C5037	1-106-359-00	MYLAR 0.0047MF 10% 200V	
*A-1345-624-A	E BOARD, COMPLETE (Serial No.2,000,001 and later) *****			C5038	1-136-111-00	FILM 1MF 5% 200V	
*A-1345-635-A	E BOARD, COMPLETE (Serial No.7,000,001 and later) *****			C5039	1-136-108-00	FILM 0.43MF 5% 200V	
Δ1-453-099-11	DC BLOCK, HIGH-VOLTAGE			C5043	1-123-026-00	ELECT 2.2MF 160V	
*1-533-146-00	HOLDER, FUSE			C5045	1-123-356-00	ELECT 10MF 20% 16V	
*4-323-833-00	HEAT SINK, PIN OUT			C5052	1-102-121-00	CERAMIC 0.0022MF 10% 50V	
*4-332-214-00	REINFORCEMENT, PC BOARD			C5053	1-123-379-00	ELECT 0.47MF 20% 50V	
*4-363-404-00	HOLDER, IC			C5054	1-102-973-00	CERAMIC 100PF 5% 50V	
4-375-412-01	SPACER, MICA			C5055	1-106-385-00	MYLAR 0.056MF 10% 200V	
*4-821-501-00	HEAT SINK			C5056	1-121-999-00	ELECT 10MF 160V	
CAPACITOR				C5057	1-102-244-00	CERAMIC 220PF 10% 500V	
C5001	1-108-614-91	MYLAR 0.001MF 10% 100V		C5058A	1-136-477-11	FILM 0.009MF 3% 1.6KV	
C5002	1-162-117-00	CERAMIC 100PF 10% 500V		C5059	1-162-115-00	CERAMIC 330PF 10% 2KV	
C5003	1-102-212-00	CERAMIC 820PF 10% 500V		C5060	1-106-359-00	MYLAR 0.0047MF 10% 200V	
C5004	1-102-002-00	CERAMIC 680PF 10% 500V		C5061	1-123-024-00	ELECT 33MF 160V	
C5005	1-123-380-00	ELECT 1MF 20% 50V		C5062	1-123-022-00	ELECT 22MF 350V	
C5006	1-108-845-00	MYLAR 0.047MF 10% 50V		C5063	1-121-999-00	ELECT 10MF 160V	
C5007	1-106-220-00	MYLAR 0.1MF 10% 100V		C5064	1-108-684-91	MYLAR 0.0022MF 10% 200V	
C5008	1-106-192-00	MYLAR 0.0068MF 10% 100V		C5065	1-123-356-00	ELECT 10MF 20% 16V	
C5009	1-136-311-11	FILM 0.47MF 20% 125V		C5066	1-102-244-00	CERAMIC 220PF 10% 500V	
C5011	1-108-630-91	MYLAR 0.022MF 10% 100V		C5068	1-108-431-00	MYLAR 0.068MF 10% 200V	
C5012	1-123-356-00	ELECT 10MF 20% 16V		C5069	1-106-220-00	MYLAR 0.1MF 10% 100V	
C5013	1-130-868-00	FILM 0.0056MF 5% 50V		C5070	1-123-333-00	ELECT 100MF 20% 25V	
C5014	1-123-369-00	ELECT 4.7MF 20% 50V		C5071	1-101-006-21	CERAMIC 0.047MF 50V	
C5015	1-123-381-00	ELECT 2.2MF 20% 50V		C5072	1-108-431-00	MYLAR 0.068MF 10% 200V	
C5016	1-123-356-00	ELECT 10MF 20% 16V		C5073	1-123-318-00	ELECT 33MF 20% 16V	
C5017	1-124-005-11	ELECT 4.7MF 20% 50V		C5074	1-108-618-91	MYLAR 0.0022MF 10% 100V	
C5018	1-123-333-00	ELECT 100MF 20% 16V		C5076	1-123-323-00	ELECT 470MF 20% 16V	
C5019	1-123-369-00	ELECT 4.7MF 20% 25V		C5077	1-123-336-00	ELECT 470MF 20% 25V	
C5020	1-102-820-00	CERAMIC 330PF 5% 50V		C5078	1-102-030-00	CERAMIC 330PF 10% 500V	
C5021	1-106-196-00	MYLAR 0.01MF 10% 100V		C5079	1-123-332-00	ELECT 47MF 20% 25V	
C5022	1-102-125-00	CERAMIC 0.0047MF 10% 50V		C5080	1-123-332-00	ELECT 47MF 20% 25V	
C5023	1-106-190-00	MYLAR 0.0056MF 10% 100V		C5090	1-102-121-00	CERAMIC 0.0022MF 10% 50V	
C5024	1-123-324-00	ELECT 1000MF 20% 16V		C5091	1-123-607-00	ELECT 0.1MF 20% 50V	
C5025	1-123-380-00	ELECT 1MF 20% 50V		C5092	1-123-252-00	ELECT 1MF 160V	
C5026	1-123-026-00	ELECT 2.2MF 160V		C5094	1-123-332-00	ELECT 47MF 20% 16V	
				C5095	1-123-360-00	ELECT 100MF 20% 50V	
				C5096	1-123-360-00	ELECT 100MF 20% 50V	
				C5097	1-123-360-00	ELECT 100MF 20% 50V	
				C5098	1-123-363-00	ELECT 470MF 20% 50V	
				C5099	1-125-186-00	ELECT(BLOCK) 560MF 200V	
				C5100	1-125-186-00	ELECT(BLOCK) 560MF 200V	
				C5101	1-161-830-00	CERAMIC 0.0047MF 500V	

NOTE:

The components identified by shading and mark Δ are critical for safety. Replace only with part number specified.

E

Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
✖ C5119A		CERAMIC	2KV			DIODE	
C5120	1-102-157-00	CERAMIC	560PF 10% 500V	D5001	8-719-911-19	DIODE 1SS119	
C5121	1-108-849-00	MYLAR	0.1MF 10% 50V	D5002	8-719-101-57	DIODE RD5.6E-L1	
C5122	1-108-427-00	MYLAR	0.033MF 10% 200V	D5003	8-719-911-19	DIODE 1SS119	
C5123	1-121-999-00	ELECT	10MF 160V	D5005	8-719-926-16	DIODE ERC26-15SA	
				D5007	8-719-911-19	DIODE 1SS119	
C5124	1-102-030-00	CERAMIC	330PF 10% 500V				
C5125	1-108-427-00	MYLAR	0.033MF 10% 200V	D5008	8-719-926-16	DIODE ERC26-15SA	
C5126A	1-136-311-51	FILM	0.47MF 20% 125V	D5010	8-719-300-76	DIODE RH1A	
C5127A	1-136-311-51	FILM	0.47MF 20% 125V	D5011	8-719-300-76	DIODE RH1A	
C5128A	1-161-743-51	CERAMIC	0.0047MF 400V	D5015	8-719-200-02	DIODE 10E2	
				D5016	8-719-300-38	DIODE GU-3A	
C5129A	1-161-743-51	CERAMIC	0.0047MF 400V				
C5130	1-123-333-00	ELECT	100MF 20% 16V	D5017	8-719-300-38	DIODE GU-3A	
C5131	1-123-356-00	ELECT	10MF 20% 16V	D5018	8-719-511-20	DIODE S1VB20	
C5132	1-123-380-00	ELECT	1MF 20% 50V	D5019	8-719-503-06	DIODE S3WB60Z	
C5133	1-102-973-00	CERAMIC	100PF 5% 50V		4-375-412-01	SPACER, MICA; D5019	
				D5020	8-719-911-19	DIODE 1SS119	
C5134	1-123-330-00	ELECT	22MF 20% 25V				
C5135	1-102-973-00	CERAMIC	100PF 5% 50V	D5021	8-719-911-55	DIODE U05G	
C5136	1-123-338-00	ELECT	2200MF 20% 25V	D5022	8-719-911-19	DIODE 1SS119	
C5137	1-108-845-00	MYLAR	0.047MF 10% 50V	D5023	8-719-911-19	DIODE 1SS119	
C5138	1-123-338-00	ELECT	2200MF 20% 25V	D5026	8-719-100-35	DIODE RD5.6E-B2	
				D5027	8-719-100-78	DIODE RD18E-B3	
C5139	1-108-843-91	MYLAR	0.033MF 10% 50V				
C5140	1-123-330-00	ELECT	22MF 20% 25V	D5028	8-719-911-19	DIODE 1SS119	
C5141	1-123-330-00	ELECT	22MF 20% 25V	D5029	8-719-102-72	DIODE RD5.6E-N3	
C5142	1-102-973-00	CERAMIC	100PF 5% 50V	D5030	8-719-200-02	DIODE 10E2	
C5143	1-123-380-00	ELECT	1MF 20% 50V	D5031	8-719-911-19	DIODE 1SS119	
				D5032	8-719-102-90	DIODE RD10E-N2	
C5144	1-102-973-00	CERAMIC	100PF 5% 50V				
C5145	1-108-843-91	MYLAR	0.033MF 10% 50V	D5033	8-719-911-19	DIODE 1SS119	
C5146	1-123-330-00	ELECT	22MF 20% 25V	D5034	8-719-911-19	DIODE 1SS119	
C5147	1-108-845-00	MYLAR	0.047MF 10% 50V	D5035	8-719-100-57	DIODE RD10E-B2	
C5148	1-108-587-00	MYLAR	0.022MF 5% 50V	D5036	8-719-911-19	DIODE 1SS119	
				D5037	8-719-100-68	DIODE RD13E-B2	
C5150	1-106-359-00	MYLAR	0.0047MF 10% 200V				
C5151	1-123-321-00	ELECT	220MF 20% 16V	D5038	8-719-911-19	DIODE 1SS119	
C5152	1-123-356-00	ELECT	10MF 20% 16V	D5039	8-719-911-19	DIODE 1SS119	
C5153	1-123-356-00	ELECT	10MF 20% 16V	D5040	8-719-911-19	DIODE 1SS119	
C5154	1-123-311-00	ELECT	1000MF 20% 10V	D5041	8-719-911-19	DIODE 1SS119	
				D5042	8-719-911-19	DIODE 1SS119	
C5155	1-123-323-00	ELECT	470MF 20% 16V				
C5156	1-102-125-00	CERAMIC	0.0047MF 10% 50V	D5043	8-719-911-19	DIODE 1SS119	
C5157	1-102-125-00	CERAMIC	0.0047MF 10% 50V	D5044	8-719-911-19	DIODE 1SS119	
C5158	1-161-743-00	CERAMIC	0.0047MF 400V	D5045	8-719-911-19	DIODE 1SS119	
C5159	1-161-830-00	CERAMIC	0.0047MF 500V	D5046	8-719-100-68	DIODE RD13E-B2	
				D5047	8-719-100-68	DIODE RD13E-B2	
C5160	1-123-335-00	ELECT	330MF 20% 25V				
C5170	1-124-645-11	ELECT	10MF 20% 16V	D5048	8-719-911-19	DIODE 1SS119	
C5171	1-123-338-00	ELECT	2200MF 20% 25V	D5050	8-719-911-19	DIODE 1SS119	
C5172	1-123-338-00	ELECT	2200MF 20% 25V	D5051	8-719-911-19	DIODE 1SS119	
C5173	1-123-338-00	ELECT	2200MF 20% 25V	D5053	8-719-900-93	DIODE V09C	
				D5054	8-719-100-68	DIODE RD13E-B2	
C5174	1-123-338-00	ELECT	2200MF 20% 25V				
C5175	1-123-318-00	ELECT	33MF 20% 16V	D5055	8-719-100-68	DIODE RD13E-B2	
C5176	1-123-321-00	ELECT	220MF 20% 16V	D5056	8-719-200-02	DIODE 10E2	
C5199	1-102-125-00	CERAMIC	0.0047MF 10% 50V	D5060	8-719-100-87	DIODE RD22E-B3	
C5200	1-102-820-00	CERAMIC	330PF 5% 50V	D5062	8-719-100-87	DIODE RD22E-B3	
C5300	1-123-380-00	ELECT	1MF 20% 50V				

NOTE:

- The components identified by ✖ in this parts list have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.

The components identified by shading and mark A are critical for safety. Replace only with part number specified.

E

Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
<u>CONNECTOR</u>				L5014	1-459-104-00	COIL, DUST CORE	
E5001	*1-508-765-00	3P PLUG (M)		<u>NEON LAMP</u>			
E5002	*1-508-786-00	2P PLUG (M)		NL5001	1-519-108-XX	LAMP, NEON ASSY	
E5003	*1-564-440-11	PLUG, CONNECTOR (2.5MM) 4P		<u>TRANSISTOR</u>			
E5004	*1-560-127-00	PLUG, CONNECTOR (2.5MM) 7P		Q5001	8-729-178-54	TRANSISTOR 2SC2785	
E5005	*1-564-353-00	PLUG, CONNECTOR (2.5MM) 2P		Q5002	8-729-178-54	TRANSISTOR 2SC2785	
E5006	*1-564-446-11	PLUG, CONNECTOR (2.5MM) 10P		Q5003	8-729-178-54	TRANSISTOR 2SC2785	
E5010	*1-508-766-00	4P PLUG (M)		Q5004	8-729-178-54	TRANSISTOR 2SC2785	
E5011	*1-508-765-00	3P PLUG (M)		Q5006	8-729-178-54	TRANSISTOR 2SC2785	
E5012	*1-508-786-00	2P PLUG (M)		Q5007	8-729-178-54	TRANSISTOR 2SC2785	
E5013	*1-564-353-00	PLUG, CONNECTOR (2.5MM) 2P		Q5009	8-729-178-54	TRANSISTOR 2SC2785	
E5014	*1-564-441-11	PLUG, CONNECTOR (2.5MM) 5P		Q5010	8-729-238-32	TRANSISTOR 2SC2383	
E5015	*1-564-440-11	PLUG, CONNECTOR (2.5MM) 4P		Q5011	8-729-105-62	TRANSISTOR 2SD560	
E5016	*1-506-347-21	4P PLUG		Q5012	8-729-101-62	TRANSISTOR 2SB601	
E5017	*1-564-440-11	PLUG, CONNECTOR (2.5MM) 4P		Q5013	8-729-168-82	TRANSISTOR 2SC2688	
E5018	*1-564-441-11	PLUG, CONNECTOR (2.5MM) 5P		Q5014	8-729-800-80	TRANSISTOR 2SD1399-CA	
E5019	*1-564-443-11	PLUG, CONNECTOR (2.5MM) 7P		Q5017	8-729-178-54	TRANSISTOR 2SC2785	
E5021	*1-564-443-11	PLUG, CONNECTOR (2.5MM) 7P		Q5020	8-729-178-54	TRANSISTOR 2SC2785	
E5022	*1-564-444-11	PLUG, CONNECTOR (2.5MM) 8P		Q5021	8-729-117-54	TRANSISTOR 2SA1175	
E5023	*1-564-443-11	PLUG, CONNECTOR (2.5MM) 7P		Q5022	8-729-178-54	TRANSISTOR 2SC2785	
E5026	*1-564-442-11	PLUG, CONNECTOR (2.5MM) 6P		Q5023	8-729-117-54	TRANSISTOR 2SA1175	
E5027	*1-508-765-00	3P PLUG (M)		Q5024	8-729-201-78	TRANSISTOR 2SD1406	
E5028	*1-506-347-21	4P PLUG		Q5025	8-729-117-54	TRANSISTOR 2SA1175	
E5029	*1-508-786-00	2P PLUG (M)		Q5026	8-729-178-54	TRANSISTOR 2SC2785	
E5030	*1-506-347-21	4P PLUG		Q5030	8-729-117-54	TRANSISTOR 2SA1175	
E5031	*1-508-786-00	2P PLUG (M)		Q5031	8-729-178-54	TRANSISTOR 2SC2785	
E5032	*1-506-348-XX	3P PLUG (L)		Q5032	8-729-117-54	TRANSISTOR 2SA1175	
E5033	*1-508-784-00	1P PLUG		<u>RESISTOR</u>			
<u>FUSE</u>				R5001	1-249-417-11	CARBON 1K 5% 1/6W	
F5001A	1-532-656-11	FUSE, GLASS TUBE 6.3A/125V		R5002	1-249-417-11	CARBON 1K 5% 1/6W	
F5002A	1-532-562-11	FUSE, GLASS TUBE 2.5A/125V		R5003	1-244-889-51	CARBON 4.7K 5% 1/2W	
F5003A	1-532-562-11	FUSE, GLASS TUBE 2.5A/125V		R5004	1-249-429-11	CARBON 10K 5% 1/6W	
<u>IC</u>				R5005	1-215-901-00	METAL OXIDE 33K 5% 2W F	
IC5001	8-759-100-60	IC UPC1377C		R5006	1-247-843-00	CARBON 3.3K 5% 1/6W	
IC5003	8-759-600-02	IC M5218L		R5007	1-247-815-00	CARBON 220 5% 1/6W	
IC5005	8-759-700-06	IC NJM7812B		R5008	1-247-819-00	CARBON 330 5% 1/6W	
IC5006	8-759-179-12	IC UPC7912H		R5010	1-247-894-00	CARBON 430K 5% 1/6W	
IC5007	8-759-178-12	IC UPC78L12		R5012	1-249-433-11	CARBON 22K 5% 1/6W	
IC5008	8-759-111-88	IC UPC1188H		R5013	1-247-859-00	CARBON 15K 5% 1/6W	
IC5009	8-759-111-88	IC UPC1188H		R5014	1-249-417-11	CARBON 1K 5% 1/6W	
<u>COIL</u>				R5015	1-247-868-00	CARBON 36K 5% 1/6W	
L5003	1-407-705-00	MICRO INDUCTOR 100UH		R5016	1-249-440-11	CARBON 82K 5% 1/6W	
L5004	1-459-570-11	HLC		R5017	1-249-440-11	CARBON 82K 5% 1/6W	
L5005	1-459-614-11	COIL, CHOKE 90UH		R5018	1-247-843-00	CARBON 3.3K 5% 1/6W	
L5007	1-407-696-00	MICRO INDUCTOR 18UH		R5019	1-215-447-00	METAL 12K 1% 1/6W	
L5008	1-407-690-00	MICRO INDUCTOR 5.6UH		R5020	1-247-150-00	CARBON 6.2K 5% 1/4W	
L5009	1-407-720-00	CHOKE COIL		R5021	1-215-437-00	METAL 4.7K 1% 1/6W	
L5010	1-459-526-11	COIL, CHOKE		R5022	1-215-471-00	METAL 120K 1% 1/6W	
L5011	1-459-104-00	COIL, DUST CORE		R5024	1-215-473-00	METAL 150K 1% 1/6W	

NOTE:

The components identified by shading and mark **A** are critical for safety. Replace only with part number specified.

E

Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
R5025	1-249-435-11	CARBON	33K 5% 1/6W	R5128	1-249-417-11	CARBON	1K 5% 1/6W
R5027	1-215-893-11	METAL OXIDE	1.5K 5% 2W F	R5129	1-247-694-11	CARBON	33 5% 1/4W
R5029	1-249-421-11	CARBON	2.2K 5% 1/6W	R5160	1-214-595-00	METAL OXIDE	100K 5% 1W F
R5030	1-247-845-00	CARBON	3.9K 5% 1/6W	R5173	1-215-415-00	METAL	560 1% 1/6W
R5031	1-247-833-00	CARBON	1.2K 5% 1/6W	R5174	1-247-700-11	CARBON	100 5% 1/4W
R5033	1-247-873-00	CARBON	56K 5% 1/6W	R5175	1-215-924-00	METAL OXIDE	15K 5% 3W F
R5034	1-247-857-00	CARBON	12K 5% 1/6W	R5176	1-216-453-00	METAL OXIDE	270 5% 2W F
R5035	1-215-463-00	METAL	56K 1% 1/6W	R5177	1-215-445-00	METAL	10K 1% 1/6W
R5036	1-249-429-11	CARBON	10K 5% 1/6W	R5178	1-249-405-11	CARBON	100 5% 1/6W
R5038	1-215-458-00	METAL	36K 1% 1/6W	R5179	1-215-417-00	METAL	680 1% 1/6W
R5039	1-249-417-11	CARBON	1K 5% 1/6W	R5180	1-247-783-00	CARBON	10 5% 1/6W
R5046	1-247-853-00	CARBON	8.2K 5% 1/6W	R5181	1-249-405-11	CARBON	100 5% 1/6W
R5058	1-215-453-00	METAL	22K 1% 1/6W	R5182	1-249-429-11	CARBON	10K 5% 1/6W
R5059	1-215-449-00	METAL	15K 1% 1/6W	R5183	1-215-441-00	METAL	6.8K 1% 1/6W
R5060	1-215-453-00	METAL	22K 1% 1/6W	R5184	1-215-415-00	METAL	560 1% 1/6W
R5061	1-247-713-11	CARBON	1K 5% 1/4W	R5190	1-216-371-00	METAL OXIDE	1.5 5% 2W F
R5062	1-247-887-00	CARBON	220K 5% 1/6W	R5191A	1-202-729-51	SOLID	6.8M 10% 1/2W
R5063	1-249-419-11	CARBON	1.5K 5% 1/6W	R5192A	1-202-723-51	SOLID	2.2M 10% 1/2W
R5065	1-249-417-11	CARBON	1K 5% 1/6W	R5193	1-247-873-00	CARBON	56K 5% 1/6W
R5066	1-206-521-00	METAL OXIDE	27 5% 3W F	R5194	1-249-435-11	CARBON	33K 5% 1/6W
R5067	1-249-417-11	CARBON	1K 5% 1/6W	R5195	1-247-821-00	CARBON	390 5% 1/6W
R5069	1-247-711-11	CARBON	680 5% 1/4W	R5196	1-247-859-00	CARBON	15K 5% 1/6W
R5070	1-247-883-00	CARBON	150K 5% 1/6W	R5197	1-249-432-11	CARBON	18K 5% 1/6W
R5071	1-247-715-11	CARBON	1.5K 5% 1/4W F	R5198	1-249-441-11	CARBON	100K 5% 1/6W
R5073	1-247-851-00	CARBON	6.8K 5% 1/6W	R5199	1-246-981-00	CARBON	4.7 5% 1/8W F
R5074	1-215-403-00	METAL	180 1% 1/6W	R5200	1-247-873-00	CARBON	56K 5% 1/6W
R5086	1-249-441-11	CARBON	100K 5% 1/6W	R5201	1-249-435-11	CARBON	33K 5% 1/6W
R5087	1-214-595-00	METAL OXIDE	100K 5% 1W F	R5202	1-247-821-00	CARBON	390 5% 1/6W
R5088A	1-205-798-11	CEMENTED	1.5 5% 20W	R5203	1-247-859-00	CARBON	15K 5% 1/6W
R5089	1-215-415-00	METAL	560 1% 1/6W	R5204	1-249-432-11	CARBON	18K 5% 1/6W
R5090	1-247-843-00	CARBON	3.3K 5% 1/6W	R5205	1-249-441-11	CARBON	100K 5% 1/6W
R5091	1-247-667-00	CARBON	5.6K 5% 1/4W F	R5206	1-246-981-00	CARBON	4.7 5% 1/8W F
R5092	1-205-778-11	CEMENTED	4.7 10% 7W	R5209	1-206-692-00	METAL OXIDE	15K 5% 2W F
R5093	1-206-439-00	METAL OXIDE	1 5% 2W F	R5210	1-215-451-00	METAL	18K 1% 1/6W
R5096	1-215-866-11	METAL OXIDE	330 5% 1W F	R5211	1-249-417-11	CARBON	1K 5% 1/6W
R5098	1-213-131-00	METAL OXIDE	100 5% 1W F	R5212	1-249-417-11	CARBON	1K 5% 1/6W
R5100	1-215-435-00	METAL	3.9K 1% 1/6W	R5214	1-215-876-00	METAL OXIDE	15K 5% 1W F
R5111	1-206-459-00	METAL OXIDE	6.8 5% 2W F	R5215	1-216-371-00	METAL OXIDE	1.5 5% 2W F
R5112	1-249-441-11	CARBON	100K 5% 1/6W	R5216	1-214-773-00	METAL	68K 1% 1/4W
R5113	1-249-429-11	CARBON	10K 5% 1/6W	R5217A		METAL	1/4W
R5114	1-247-857-00	CARBON	12K 5% 1/6W	R5218A		METAL	1/4W
R5115	1-249-421-11	CARBON	2.2K 5% 1/6W	R5219	1-249-437-11	CARBON	47K 5% 1/6W
R5116	1-249-417-11	CARBON	1K 5% 1/6W	R5220	1-249-437-11	CARBON	47K 5% 1/6W
R5117	1-249-421-11	CARBON	2.2K 5% 1/6W	R5221	1-247-831-00	CARBON	1K 5% 1/8W F
R5119	1-247-131-00	CARBON	1K 5% 1/4W F	R5222	1-249-417-11	CARBON	1K 5% 1/6W
R5120	1-214-751-00	METAL	8.2K 1% 1/4W	R5223	1-249-429-11	CARBON	10K 5% 1/6W
R5121	1-249-453-11	CARBON	3.3 5% 1/4W F	R5224	1-249-429-11	CARBON	10K 5% 1/6W
R5122	1-249-429-11	CARBON	10K 5% 1/6W	R5225	1-249-429-11	CARBON	10K 5% 1/6W
R5123	1-249-441-11	CARBON	100K 5% 1/6W	R5226	1-249-437-11	CARBON	47K 5% 1/6W
R5124	1-249-425-11	CARBON	4.7K 5% 1/6W	R5228	1-247-163-00	CARBON	22K 5% 1/4W
R5125	1-249-441-11	CARBON	100K 5% 1/6W	R5229	1-249-433-11	CARBON	22K 5% 1/6W
R5126	1-249-441-11	CARBON	100K 5% 1/6W	R5230	1-249-425-11	CARBON	4.7K 5% 1/6W
R5127	1-249-437-11	CARBON	47K 5% 1/6W	R5231	1-249-433-11	CARBON	22K 5% 1/6W

NOTE:

- The components identified by **■** in this parts list have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.

The components identified by shading and mark **△** are critical for safety. Replace only with part number specified.

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Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
R5232	1-247-857-00	CARBON 12K 5% 1/6W		C1302	1-102-978-00	CERAMIC 220PF 5% 50V	
R5233	1-249-421-11	CARBON 2.2K 5% 1/6W		C1303	1-101-004-00	CERAMIC 0.01MF 50V	
R5236	1-249-405-11	CARBON 100 5% 1/6W		C1304	1-123-318-00	ELECT 33MF 20% 16V	
R5237	1-247-891-00	CARBON 330K 5% 1/6W		C1305	1-106-196-00	MYLAR 0.01MF 10% 100V	
R5238	1-249-405-11	CARBON 100 5% 1/6W		C1306	1-123-333-00	ELECT 100MF 20% 16V	
R5239	1-249-437-11	CARBON 47K 5% 1/6W		C1307	1-102-822-00	CERAMIC 390PF 5% 50V	
R5240	1-249-433-11	CARBON 22K 5% 1/6W		C1308	1-101-888-00	CERAMIC 68PF 5% 50V	
R5241	1-249-405-11	CARBON 100 5% 1/6W		DIODE			
R5246	1-215-421-00	METAL 1K 1% 1/6W		D1305	8-719-911-19	DIODE 1SS119	
R5247	1-215-445-00	METAL 10K 1% 1/6W		D1306	8-719-911-19	DIODE 1SS119	
R5248	1-215-477-00	METAL 220K 1% 1/6W		D1307	8-719-911-19	DIODE 1SS119	
R5249	1-215-449-00	METAL 15K 1% 1/6W		D1308	8-719-911-19	DIODE 1SS119	
R5250	1-215-449-00	METAL 15K 1% 1/6W		D1310	8-719-911-19	DIODE 1SS119	
R5251	1-249-417-11	CARBON 1K 5% 1/6W		D1313	8-719-911-19	DIODE 1SS119	
R5252	1-249-405-11	CARBON 100 5% 1/6W		D1314	8-719-911-19	DIODE 1SS119	
R5260	1-247-715-11	CARBON 1.5K 5% 1/4W F		D1316	8-719-911-19	DIODE 1SS119	
R5261	1-215-421-00	METAL 1K 1% 1/6W		D1317	8-719-911-19	DIODE 1SS119	
R5262	1-249-405-11	CARBON 100 5% 1/6W		D1320	8-719-911-19	DIODE 1SS119	
R5263	1-207-463-00	WIREWOUND 1 10% 1/2W		D1321	8-719-911-19	DIODE 1SS119	
R5264	1-207-463-00	WIREWOUND 1 10% 1/2W		D1322	8-719-102-58	DIODE RD3.6E-N2	
R5270	1-247-851-00	CARBON 6.8K 5% 1/6W		IC			
R5271	1-247-843-00	CARBON 3.3K 5% 1/6W		IC1301	8-759-909-49	IC CX23040	
R5280	1-247-895-00	CARBON 470K 5% 1/6W		COIL			
R5297	1-205-778-11	CEMENTED 4.7 10% 7W		L1301	1-408-454-31	MICRO INDUCTOR 100UH	
R5299	1-249-417-11	CARBON 1K 5% 1/6W		CONNECTOR			
VARIABLE RESISTOR				M1	*1-564-441-11	PLUG, CONNECTOR (2.5MM) 5P	
RV5001	1-228-723-00	RES, ADJ, CERAMIC CARBON 4.7K		M2	*1-564-354-00	PLUG, CONNECTOR (2.5MM) 3P	
RV5008	1-228-723-00	RES, ADJ, CERAMIC CARBON 4.7K		M3	*1-564-441-11	PLUG, CONNECTOR (2.5MM) 5P	
RV5009	1-228-723-00	RES, ADJ, CERAMIC CARBON 4.7K		M4	*1-564-354-00	PLUG, CONNECTOR (2.5MM) 3P	
RV5010	1-228-721-00	RES, ADJ, CERAMIC CARBON 2.2K		M5	*1-564-354-00	PLUG, CONNECTOR (2.5MM) 3P	
SPARK GAP				TRANSISTOR			
SG5001	1-519-063-XX	DISCHARGING GAP		Q1301	8-729-178-54	TRANSISTOR 2SC2785	
TRANSFORMER				Q1302	8-729-178-54	TRANSISTOR 2SC2785	
T5001	1-437-078-00	TRANSFORMER, HORIZONTAL DRIVE		Q1303	8-729-178-54	TRANSISTOR 2SC2785	
T5002A	1-448-162-11	TRANSFORMER, POWER		RESISTOR			
T5003	1-421-656-11	TRANSFORMER, FERRITE (DFT)		R1301	1-249-421-11	CARBON 2.2K 5% 1/6W	
T5004A	1-439-366-12	TRANSFORMER ASSY, FLYBACK		R1302	1-249-421-11	CARBON 2.2K 5% 1/6W	
T5005A	1-421-590-11	TRANSFORMER, LINE FILTER		R1303	1-249-421-11	CARBON 2.2K 5% 1/6W	
T5006A	1-421-590-11	TRANSFORMER, LINE FILTER		R1304	1-249-421-11	CARBON 2.2K 5% 1/6W	
*****				R1305	1-249-421-11	CARBON 2.2K 5% 1/6W	
*A-1371-058-A	M BOARD, COMPLETE (Serial No.2,000,001 and later) *****			R1306	1-249-421-11	CARBON 2.2K 5% 1/6W	
*A-1371-176-A	M BOARD, COMPLETE (Serial No.7,000,001 and later) *****			R1307	1-249-421-11	CARBON 2.2K 5% 1/6W	
CAPACITOR				R1308	1-249-421-11	CARBON 2.2K 5% 1/6W	
C1301	1-102-978-00	CERAMIC 220PF 5% 50V		R1309	1-249-421-11	CARBON 2.2K 5% 1/6W	
				R1310	1-249-421-11	CARBON 2.2K 5% 1/6W	
				R1311	1-249-421-11	CARBON 2.2K 5% 1/6W	

NOTE:

The components identified by shading and mark A are critical for safety. Replace only with part number specified.

M

T1

T2

XR

XG

XB

WA

Ref.No.	Part No.	Description	Remark
R1312	1-249-437-11	CARBON 47K 5% 1/6W	
R1313	1-249-441-11	CARBON 100K 5% 1/6W	
R1314	1-249-421-11	CARBON 2.2K 5% 1/6W	
R1315	1-247-887-00	CARBON 220K 5% 1/6W	
R1316	1-249-425-11	CARBON 4.7K 5% 1/6W	

R1317	1-247-833-00	CARBON 1.2K 5% 1/6W	
R1318	1-247-823-00	CARBON 470 5% 1/6W	
R1319	1-249-405-11	CARBON 100 5% 1/6W	
R1320	1-249-429-11	CARBON 10K 5% 1/6W	
R1321	1-247-823-00	CARBON 470 5% 1/6W	

R1322	1-249-421-11	CARBON 2.2K 5% 1/6W	
R1323	1-249-421-11	CARBON 2.2K 5% 1/6W	
R1324	1-249-421-11	CARBON 2.2K 5% 1/6W	
R1325	1-249-429-11	CARBON 10K 5% 1/6W	
R1326	1-249-433-11	CARBON 22K 5% 1/6W	

R1327	1-247-819-00	CARBON 330 5% 1/6W	
R1328	1-247-791-00	CARBON 22 5% 1/6W	
R1329	1-247-859-00	CARBON 15K 5% 1/6W	
R1336	1-249-417-11	CARBON 1K 5% 1/6W	

SWITCH

S1301	1-554-088-00	SWITCH, KEY BOARD	
S1302	1-554-088-00	SWITCH, KEY BOARD	
S1303	1-554-088-00	SWITCH, KEY BOARD	
S1304	1-554-088-00	SWITCH, KEY BOARD	
S1305	1-554-980-11	SWITCH, KEY BOARD	

S1306	1-554-980-11	SWITCH, KEY BOARD	
S1307	1-554-980-11	SWITCH, KEY BOARD	
S1308	1-554-980-11	SWITCH, KEY BOARD	
S1309	1-554-088-00	SWITCH, KEY BOARD	
S1310	1-554-980-11	SWITCH, KEY BOARD	

S1311	1-554-088-00	SWITCH, KEY BOARD	
S1312	1-554-980-11	SWITCH, KEY BOARD	
S1313	1-554-980-11	SWITCH, KEY BOARD	
S1316	1-554-980-11	SWITCH, KEY BOARD	
S1317	1-554-980-11	SWITCH, KEY BOARD	

S1319	1-554-980-11	SWITCH, KEY BOARD	
S1321	1-553-651-00	SWITCH, SLIDE	
S1322	1-553-651-00	SWITCH, SLIDE	
S1323	1-553-651-00	SWITCH, SLIDE	

CRYSTAL

X1301	1-527-476-00	OSCILLATOR, CERAMIC	
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*1-615-621-12 T1 BOARD

*4-375-416-01 HOLDER, LED

DIODE

D1301	8-719-921-55	DIODE SLP155B	
D1302	8-719-921-55	DIODE SLP155B	

Ref.No.	Part No.	Description	Remark
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D1303	8-719-904-92	DIODE G-9HY2	
D1304	8-719-904-92	DIODE G-9HY2	

*1-615-622-12 T2 BOARD

SWITCH

S1320	1-554-088-11	SWITCH, KEY BOARD	
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*1-618-355-11 XR BOARD

CONNECTOR

XR1	*1-560-278-00	PLUG, CONNECTOR 4P	
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*1-618-356-11 XG BOARD

CONNECTOR

XG1	*1-560-721-21	PLUG, CONNECTOR 2P	
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*1-618-357-11 XB BOARD

CONNECTOR

XB1	*1-560-278-00	PLUG, CONNECTOR 5P	
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*1-618-588-11 WA BOARD

1-543-060-00 CORE

CAPACITOR

C8501	1-102-973-00	CERAMIC	100PF	5%	50V
C8502	1-102-973-00	CERAMIC	100PF	5%	50V
C8503	1-102-973-00	CERAMIC	100PF	5%	50V
C8504	1-102-973-00	CERAMIC	100PF	5%	50V
C8505	1-102-973-00	CERAMIC	100PF	5%	50V

C8506	1-102-973-00	CERAMIC	100PF	5%	50V
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JACK

J8503	1-507-792-00	JACK	
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COIL

L8501	1-410-328-11	MICRO INDUCTOR 10UH	
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WB

G(SW,REG)

Ref.No.	Part No.	Description	Remark
R8502	1-247-700-11	CARBON 100 5% 1/4W	
R8503	1-247-104-00	CARBON 75 5% 1/4W	
R8504	1-247-104-00	CARBON 75 5% 1/4W	
R8505	1-247-104-00	CARBON 75 5% 1/4W	
R8506	1-247-104-00	CARBON 75 5% 1/4W	
R8507	1-249-429-11	CARBON 10K 5% 1/6W	
R8508	1-249-429-11	CARBON 10K 5% 1/6W	
R8509	1-249-429-11	CARBON 10K 5% 1/6W	
R8510	1-249-419-11	CARBON 1.5K 5% 1/6W	
R8511	1-249-419-11	CARBON 1.5K 5% 1/6W	
R8512	1-249-419-11	CARBON 1.5K 5% 1/6W	
R8513	1-249-429-11	CARBON 10K 5% 1/6W	
R8514	1-249-405-11	CARBON 100 5% 1/6W	
R8515	1-249-405-11	CARBON 100 5% 1/6W	
R8516	1-249-405-11	CARBON 100 5% 1/6W	
R8517	1-247-853-00	CARBON 8.2K 5% 1/6W	
R8518	1-249-421-11	CARBON 2.2K 5% 1/6W	
R8519	1-247-817-00	CARBON 270 5% 1/6W	
R8520	1-247-817-00	CARBON 270 5% 1/6W	
R8521	1-247-817-00	CARBON 270 5% 1/6W	
R8522	1-249-419-11	CARBON 1.5K 5% 1/6W	
R8523	1-249-419-11	CARBON 1.5K 5% 1/6W	
R8524	1-249-419-11	CARBON 1.5K 5% 1/6W	
R8525	1-249-433-11	CARBON 22K 5% 1/6W	
R8526	1-249-433-11	CARBON 22K 5% 1/6W	
R8527	1-249-419-11	CARBON 1.5K 5% 1/6W	
R8528	1-247-823-00	CARBON 470 5% 1/6W	
R8529	1-249-417-11	CARBON 1K 5% 1/6W	
R8530	1-247-819-00	CARBON 330 5% 1/6W	
R8531	1-249-433-11	CARBON 22K 5% 1/6W	
R8532	1-249-429-11	CARBON 10K 5% 1/6W	
R8533	1-249-405-11	CARBON 100 5% 1/6W	
R8534	1-247-815-00	CARBON 220 5% 1/6W	
R8535	1-247-819-00	CARBON 330 5% 1/6W	
R8536	1-249-417-11	CARBON 1K 5% 1/6W	
R8537	1-249-417-11	CARBON 1K 5% 1/6W	
R8538	1-249-421-11	CARBON 2.2K 5% 1/6W	
R8539	1-249-425-11	CARBON 4.7K 5% 1/6W	
R8540	1-247-851-00	CARBON 6.8K 5% 1/6W	
R8541	1-247-851-00	CARBON 6.8K 5% 1/6W	
R8542	1-249-425-11	CARBON 4.7K 5% 1/6W	
R8543	1-249-425-11	CARBON 4.7K 5% 1/6W	
R8544	1-249-429-11	CARBON 10K 5% 1/6W	
R8545	1-249-429-11	CARBON 10K 5% 1/6W	
R8546	1-249-429-11	CARBON 10K 5% 1/6W	
R8547	1-247-833-00	CARBON 1.2K 5% 1/6W	
R8548	1-247-857-00	CARBON 12K 5% 1/6W	
R8549	1-249-425-11	CARBON 4.7K 5% 1/6W	
R8550	1-249-417-11	CARBON 1K 5% 1/6W	
R8551	1-249-429-11	CARBON 10K 5% 1/6W	

CONNECTOR

WB1	*1-564-346-00	CONNECTOR, BOARD TO BOARD 18P
WB2	*1-564-458-11	PLUG, CONNECTOR (2.5MM) 10P
WB3	*1-564-457-11	PLUG, CONNECTOR (2.5MM) 9P
WB4	*1-564-450-11	PLUG, CONNECTOR (2.5MM) 2P

Ref.No.	Part No.	Description	Remark
	A.1-413-219-11	G BOARD *****	
	*2-430-308-01	INSULATOR (TK-03), TR	
	*2-430-498-01	RUBBER, HEAT SINK	
	*2-430-499-01	SHEET, INSULATING	
	*2-430-742-00	BRACKET, RIGHT (SR-12), L	
	*2-430-743-00	BRACKET, LEFT (SR-12), L	
	2-430-773-01	+PSW 3X6	
	2-430-060-01	+PSW 3X18	
		CAPACITOR	
C601	A.1-130-806-21	FILM 0.1MF 10% 400V	
C602	A.1-125-268-11	ELECT 47MF 20% 400V	
C603	A.1-124-024-51	ELECT 4.7MF 20% 350V	
C604	A.1-124-024-51	ELECT 4.7MF 20% 350V	
C605	A.1-161-963-11	CERAMIC 100PF 20% 2KV	
C606	A.1-123-575-51	ELECT 100MF 20% 160V	
C607	A.1-123-935-51	ELECT 33MF 20% 160V	
C608	A.1-161-912-11	CERAMIC 560PF 10% 500V	
C609	A.1-161-912-11	CERAMIC 560PF 10% 500V	
C610	A.1-123-349-51	ELECT 1000MF 20% 35V	
C611	A.1-123-333-51	ELECT 100MF 20% 25V	
C612	A.1-161-912-11	CERAMIC 560PF 10% 500V	
C613	A.1-161-912-11	CERAMIC 560PF 10% 500V	
C614	A.1-123-349-51	ELECT 1000MF 20% 35V	
C615	A.1-123-333-51	ELECT 100MF 20% 25V	
C616	A.1-130-806-21	FILM 0.1MF 10% 400V	
C617	A.1-130-806-21	FILM 0.1MF 10% 400V	
C618	A.1-131-455-51	TANTALUM ELECT 0.47MF 20% 16V	
C619	A.1-131-455-51	TANTALUM ELECT 0.47MF 20% 16V	
C620	A.1-123-332-51	ELECT 47MF 20% 25V	
C621	A.1-130-027-51	FILM 0.0056MF 5% 50V	
C622	A.1-130-512-51	FILM 0.0047MF 10% 50V	
C623	A.1-130-806-21	FILM 0.1MF 10% 400V	
C624	A.1-123-330-51	ELECT 22MF 20% 25V	
C625	A.1-161-742-12	CERAMIC 2200PF 20% 400V	
C626	A.1-161-742-12	CERAMIC 2200PF 20% 400V	
C627	A.1-161-742-12	CERAMIC 2200PF 20% 400V	
C628	A.1-161-742-12	CERAMIC 2200PF 20% 400V	

NOTE:

The components identified by shading and mark A are critical for safety. Replace only with part number specified.

G(SW,REG)

Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
<u>DIODE</u>							
D601	△.8-719-901-70	DIODE CTU-38S		R611	△.1-247-913-11	CARBON 1K 5% 1/4W	
D602	△.8-719-300-52	DIODE CTU-38R		R612	△.1-246-525-25	CARBON 150K 5% 1/4W	
D603	△.8-719-301-25	DIODE CTL22S		R613	△.1-246-481-25	CARBON 2.2K 5% 1/4W	
D604	△.8-719-901-90	DIODE ESAC33-02N		R614	△.1-246-493-25	CARBON 6.8K 5% 1/4W	
D605	△.8-719-200-01	DIODE 10E1		R615	△.1-246-487-25	CARBON 3.9K 5% 1/4W	
D606	△.8-719-200-01	DIODE 10E1		R616	△.1-246-515-25	CARBON 56K 5% 1/4W	
D607	△.8-719-920-76	DIODE 1S2076		R617	△.1-246-505-25	CARBON 22K 5% 1/4W	
D608	△.8-719-920-76	DIODE 1S2076		R618	△.1-246-479-25	CARBON 1.8K 5% 1/4W	
D609	△.8-719-920-76	DIODE 1S2076		R619	△.1-214-779-51	METAL FILM 120K 1% 1/4W	
<u>CORE</u>				*R620	△.1-214-769-51	METAL FILM 47K 1% 1/4W	
FB601	△.1-543-060-11	CORE		*R620	△.1-214-770-51	METAL FILM 51K 1% 1/4W	
FB602	△.1-543-060-11	CORE		*R620	△.1-214-771-51	METAL FILM 56K 1% 1/4W	
FB603	△.1-543-060-11	CORE		*R620	△.1-214-772-51	METAL FILM 62K 1% 1/4W	
FB604	△.1-543-060-11	CORE		*R620	△.1-214-773-51	METAL FILM 68K 1% 1/4W	
FB605	△.1-543-060-11	CORE		*R620	△.1-214-774-51	METAL FILM 75K 1% 1/4W	
FB606	△.1-543-060-11	CORE		*R620	△.1-214-775-51	METAL FILM 82K 1% 1/4W	
FB607	△.1-543-060-11	CORE		*R620	△.1-214-776-51	METAL FILM 91K 1% 1/4W	
FB608	△.1-543-060-11	CORE		*R620	△.1-214-777-51	METAL FILM 100K 1% 1/4W	
FB609	△.1-543-060-11	CORE		*R620	△.1-214-778-51	METAL FILM 110K 1% 1/4W	
FB610	△.1-543-060-11	CORE		*R620	△.1-214-779-51	METAL FILM 120K 1% 1/4W	
FB611	△.1-543-060-11	CORE		*R620	△.1-214-780-51	METAL FILM 130K 1% 1/4W	
FB612	△.1-543-060-11	CORE		*R620	△.1-214-781-51	METAL FILM 150K 1% 1/4W	
<u>IC</u>				*R620	△.1-214-782-51	METAL FILM 160K 1% 1/4W	
IC601	△.8-759-906-62	IC MB3759-SNY		*R620	△.1-214-783-51	METAL FILM 180K 1% 1/4W	
<u>COIL</u>				*R620	△.1-214-784-51	METAL FILM 200K 1% 1/4W	
L601	△.1-421-606-11	L.F.T		*R620	△.1-214-785-51	METAL FILM 220K 1% 1/4W	
L602	△.1-410-245-11	COIL, CHOKE 2.5MMH		*R620	△.1-214-786-51	METAL FILM 240K 1% 1/4W	
L603	△.1-408-933-11	COIL, CHOKE		*R620	△.1-214-787-51	METAL FILM 270K 1% 1/4W	
L604	△.1-410-244-11	COIL, CHOKE 300UH		*R620	△.1-214-788-51	METAL FILM 300K 1% 1/4W	
L605	△.1-408-933-11	COIL, CHOKE		*R620	△.1-214-952-51	METAL FILM 330K 1% 1/4W	
L606	△.1-408-933-11	COIL, CHOKE		*R620	△.1-214-953-51	METAL FILM 360K 1% 1/4W	
<u>TRANSISTOR</u>				*R620	△.1-214-954-51	METAL FILM 390K 1% 1/4W	
Q601	△.8-729-301-76	TRANSISTOR STR8124-R		*R620	△.1-214-955-51	METAL FILM 430K 1% 1/4W	
Q602	△.8-729-177-42	TRANSISTOR 2SD774-3		*R620	△.1-214-956-51	METAL FILM 470K 1% 1/4W	
Q603	△.8-729-177-42	TRANSISTOR 2SD774-3		*R620	△.1-214-957-51	METAL FILM 510K 1% 1/4W	
Q604	△.8-729-178-52	TRANSISTOR 2SC2785-J		*R620	△.1-214-958-51	METAL FILM 560K 1% 1/4W	
Q605	△.8-729-178-52	TRANSISTOR 2SC2785-J		*R620	△.1-214-959-51	METAL FILM 620K 1% 1/4W	
Q606	△.8-729-117-52	TRANSISTOR 2SA1175-J		*R620	△.1-214-960-51	METAL FILM 680K 1% 1/4W	
Q607	△.8-729-117-52	TRANSISTOR 2SA1175-J		*R620	△.1-214-961-51	METAL FILM 750K 1% 1/4W	
Q608	△.8-729-117-52	TRANSISTOR 2SA1175-J		*R620	△.1-214-962-51	METAL FILM 820K 1% 1/4W	
<u>RESISTOR</u>				*R620	△.1-214-963-51	METAL FILM 910K 1% 1/4W	
R601	△.1-246-429-25	CARBON 15 5% 1/4W		*R620	△.1-214-964-51	METAL FILM 1.0M 1% 1/4W	
R602	△.1-246-429-25	CARBON 15 5% 1/4W		R621	△.1-214-745-51	METAL FILM 4.7K 1% 1/4W	
R603	△.1-214-745-51	METAL FILM 4.7K 1% 1/4W		R622	△.1-246-509-25	CARBON 33K 5% 1/4W	
R604	△.1-214-745-51	METAL FILM 4.7K 1% 1/4W		R623	△.1-246-493-25	CARBON 6.8K 5% 1/4W	
R605	△.1-217-267-11	WIREWOUND 33 10% 3W F		R626	△.1-246-481-25	CARBON 2.2K 5% 1/4W	
R606	△.1-246-457-25	CARBON 220 5% 1/4W		R627	△.1-246-481-25	CARBON 2.2K 5% 1/4W	
R607	△.1-246-418-25	CARBON 5.1 5% 1/4W		R628	△.1-246-497-25	CARBON 10K 5% 1/4W	
R608	△.1-246-449-25	CARBON 100 5% 1/4W		R629	△.1-214-781-51	METAL FILM 150K 1% 1/4W	
R609	△.1-246-449-25	CARBON 100 5% 1/4W		R630	△.1-214-746-51	METAL FILM 5.1K 1% 1/4W	
R610	△.1-246-497-25	CARBON 10K 5% 1/4W		<u>TRANSFORMER</u>			
				T601	△.1-421-460-31	TRANSFORMER, CURRENT	
				T602	△.1-448-071-11	TRANSFORMER, POWER	
				T603	△.1-447-106-11	TRANSFORMER, DRIVE	

NOTE:

The components identified by shading and mark △ are critical for safety. Replace only with part number specified.

• * : selected to yield optimum performance.

Ref.No.	Part No.	Description	Remark
MISCELLANEOUS *****			
	△.1-230-089-21	RESISTOR ASSY, HIGH-VOLTAGE	
	△.1-413-219-11	SWITCHING REGULATOR (TK-10)	
	△.1-417-125-11	SELECTOR, ANTENNA	
	△.1-451-269-12	DEFLECTION YOKE (SY-174)	
	△.1-452-261-31	CRT NECK ASSY (362)	
	△.1-452-361-12	NECK ASSY, CRT (NA365)	
	△.1-452-361-22	NECK ASSY, CRT (NA365)	
	△.1-463-471-33	SYNTHESIZER UNIT, FREQUENCY	
	△.1-509-841-12	OUTLET, AC	
	1-536-922-11	TERMINAL BOARD, INPUT/OUTPUT	
	1-536-998-11	TERMINAL BOARD, INPUT/OUTPUT	
	*1-551-382-00	CABLE P-P	
	*1-557-056-31	CABLE, P-P	
	△.1-557-970-11	CORD, POWER	
	△.1-570-258-21	SWITCH, THERMAL REED	
	△.8-737-551-05	CRT (SD-174(G))	
	△.8-737-552-05	CRT (SD-174(B))	
	△.8-737-553-05	CRT (SD-174(R))	
SP901	1-503-601-11	SPEAKER	
SP902	1-503-601-11	SPEAKER	
TU101A	△.1-463-470-00	TUNER, ET (BT-896) (Serial No.7,000,001 and later)	

ACCESSORIES AND PACKING MATERIALS *****			
	A-1470-694-A	COMMANDER ASSY (RM-730)	
	△.1-417-135-11	MIXER, U/V	
	*4-359-683-00	BAG, PROTECTION	
	4-375-541-01	BAND (Serial No.2,000,001 and later)	
	4-375-542-01	BOARD, TOP (Serial No.2,000,001 and later)	
	4-375-543-01	CUSHION (UPPER) (ASSY) (Serial No.2,000,001 and later)	
	4-375-544-01	CUSHION (LOWER) (ASSY) (Serial No.2,000,001 and later)	
	4-375-545-01	SHEET, PROTECTION	
	4-375-546-01	INDIVIDUAL CARTON (Serial No.2,000,001 and later)	
	4-375-547-01	TRAY (Serial No.2,000,001 and later)	
	*4-380-839-01	BAND (Serial No.7,000,001 and later)	
	*4-380-840-01	BOARD, TOP (Serial No.7,000,001 and later)	
	*4-380-841-01	CUSHION (LOWER) (ASSY) (Serial No.7,000,001 and later)	
	*4-380-842-01	CUSHION (UPPER) (ASSY) (Serial No.7,000,001 and later)	
	*4-380-843-01	INDIVIDUAL CARTON (Serial No.7,000,001 and later)	
	*4-380-844-01	TRAY (Serial No.7,000,001 and later)	
	*4-380-850-01	CUSHION (Serial No.7,000,001 and later)	
	4-482-213-21	MANUAL, INSTRUCTION	
	4-491-213-22	INSTRUCTION	

NOTE:

The components identified by shading and mark △ are critical for safety. Replace only with part number specified.

RM-730

SERVICE MANUAL



May, 1986

SPECIFICATIONS

Remote control system	Infrared control
Power requirements	3V DC Battery size AA × 2 (IEC battery designation R6)
Dimensions	Approx. 55 × 19.8 × 175 mm (w/h/d) (2 1/4 × 25/32 × 7 inches)
Weight	130g (4 1/2 oz), including batteries

Design and specifications are subject to change without notice.

RGB multi input (8-pin plug)

Pin No.	Signal assignment
1	Intensity input
2	Red input
3	Green input
4	Blue input
5	Ground
6	Ground
7	H. sync or composite sync
8	V. sync

REMOTE COMMANDER
SONY®

ACC

1. OPERATION

VIEWING TV PROGRAMS

This set is capable of receiving normal VHF and UHF broadcasts plus cable TV channels. (See "Cable TV channel chart" on this page.)

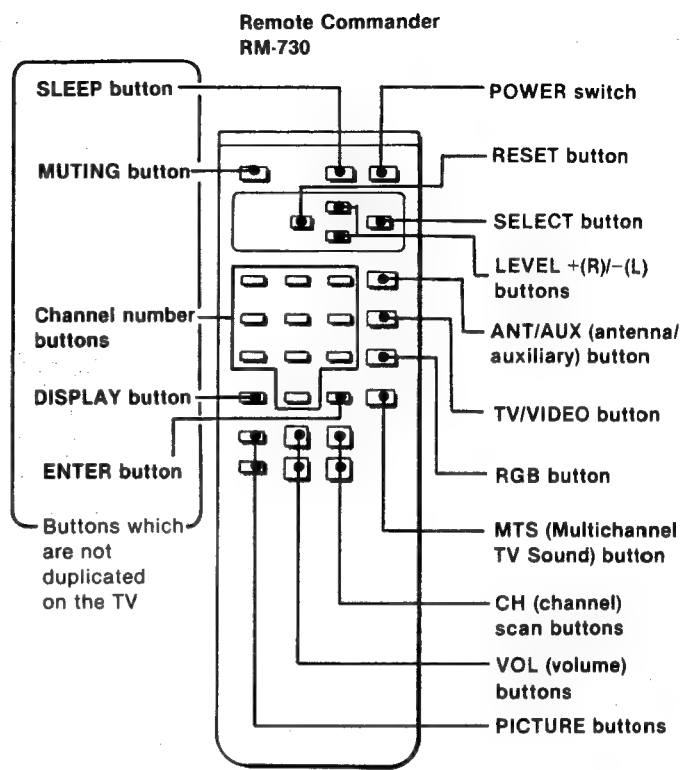
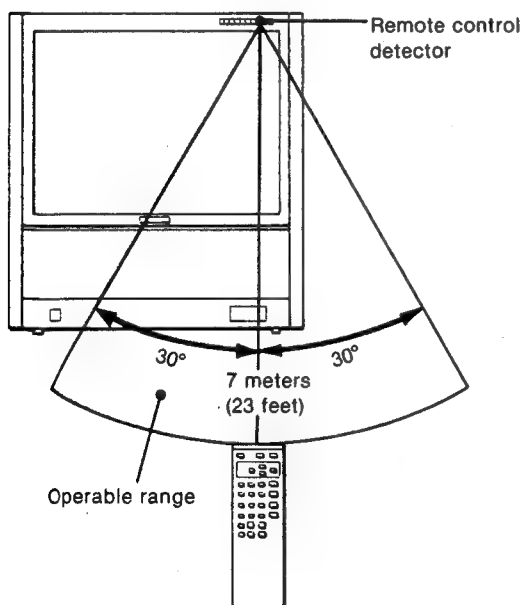
Usually the Remote Commander is all that is needed to operate the unit in everyday use.

Remote Commander RM-730

- 1 Turn the Remote Commander face down, press the tab and lift the cover.
- 2 Place batteries in the Commander with the polarities in the correct directions as illustrated inside the case.
- 3 Replace the cover.

Notes

- Use 2 size AA batteries (IEC designation R6).
- In normal operation, batteries will last up to half a year. If the set does not operate properly, the batteries might be exhausted. Replace all with new ones.
- To avoid damage from possible battery leakage, remove the batteries for extended unused periods.
- Be sure that there are no obstructions between the Commander and the unit.
- Operable range is limited.



Cable TV channel chart *

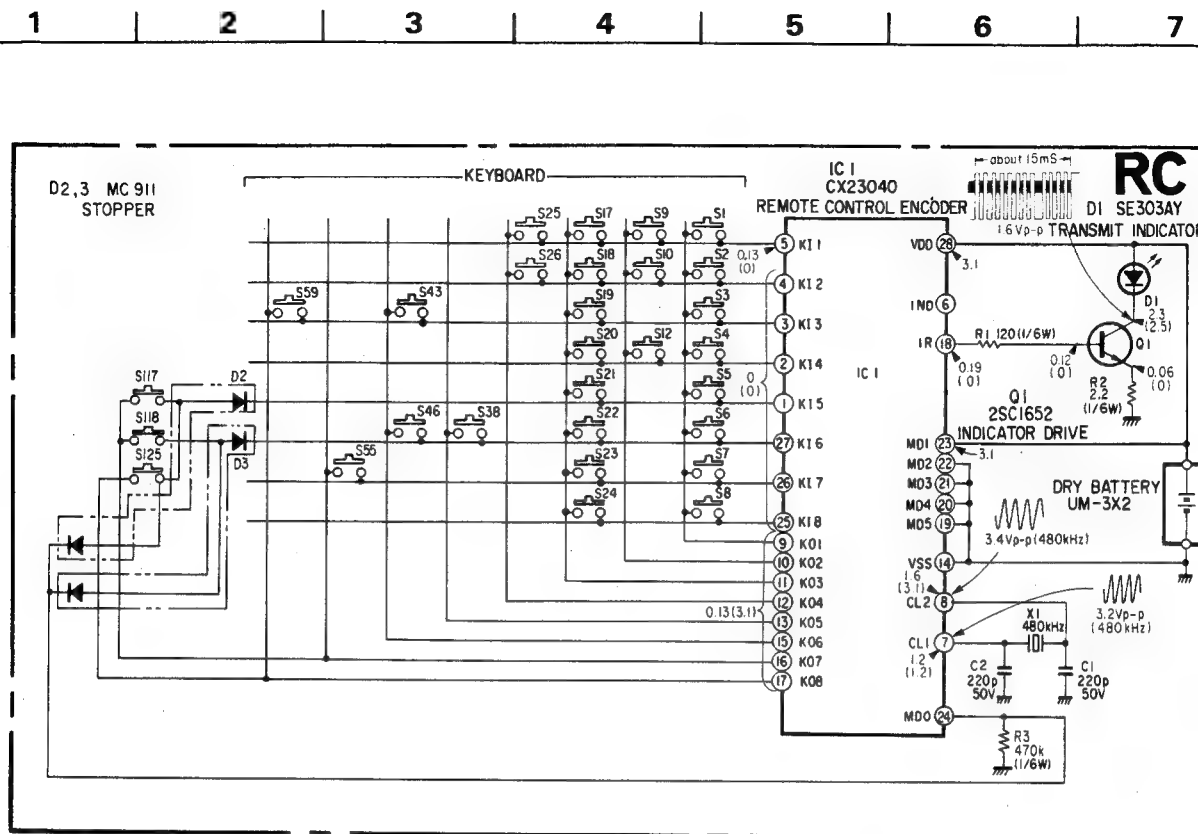
Cable TV systems use letters or numbers to designate channels. To tune in a channel, refer to this chart.

Number on this set										1	5	6	14	15	16	17
Corresponding CATV channel										A-8	A-7	A-6	A	B	C	D
18	19	20	21	22	23	24	25	26	27	28	29	30				
E	F	G	H	I	J	K	L	M	N	O	P	Q				
31	32	33	34	35	36	37	38	39							93	94
R	S	T	U	V	W	W+1	W+2	W+3							W+57	W+58
95	96	97	98	99	100	101	102							123	124	125
A-5	A-4	A-3	A-2	A-1	W+59	W+60	W+61							W+82	W+83	W+84

Check with your local cable TV company for more complete information on the available channels.

*The designation of the cable TV channels conforms to the EIA/NCTA recommendation.

2. SCHEMATIC DIAGRAM



KEY MATRIX TABLE

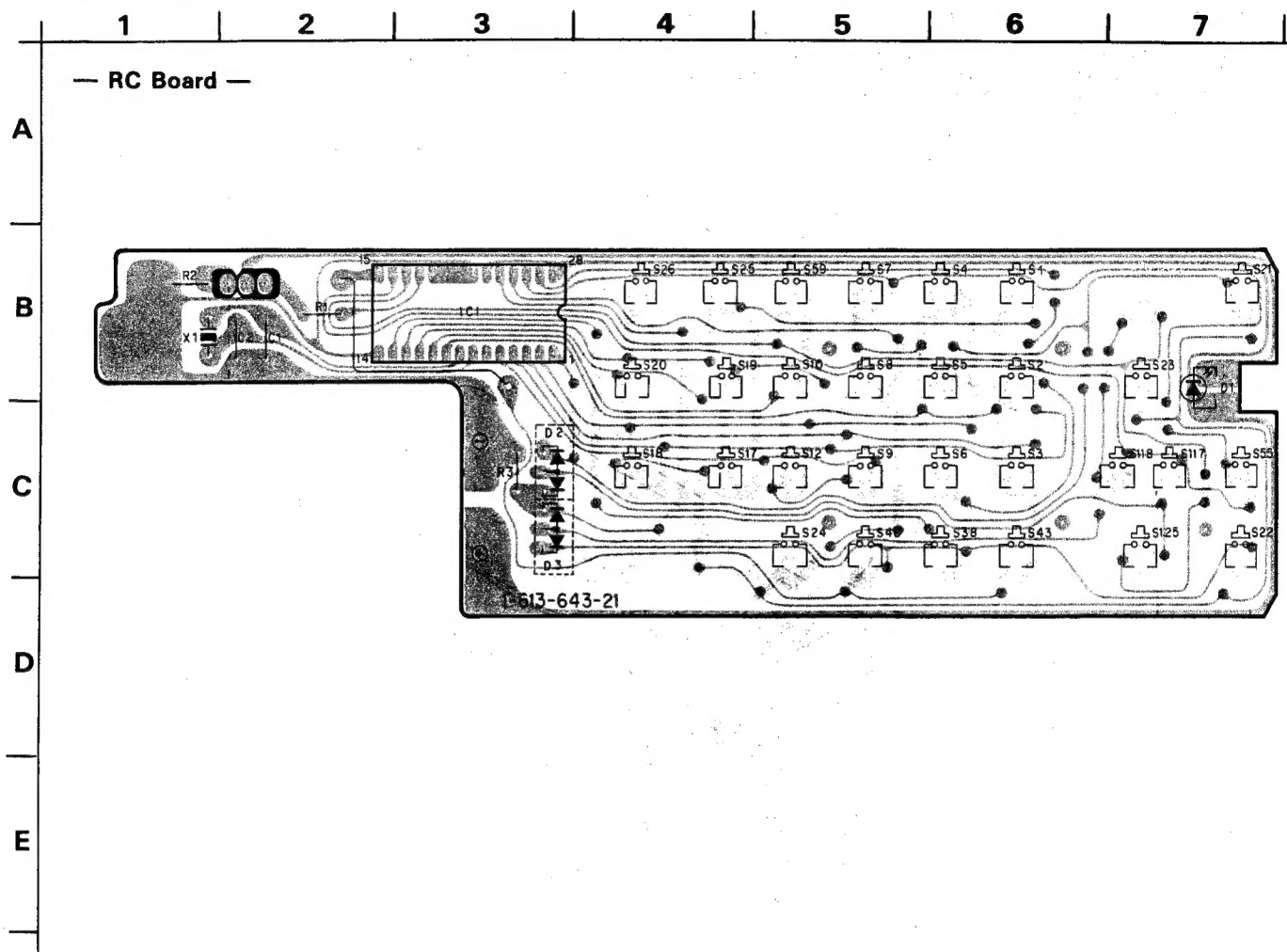
		K01		K02		K03		K04		K05		K06		K07		K08			
K11	S1	1	S9	9	S17	CH +	S25	PICTURE +	S33		S41		S49	S57				S117	LEVEL + (R)
K12	S2	2	S10	0	S18	CH -	S26	PICTURE -	S34		S42		S50	S58				S118	LEVEL - (L)
K13	S3	3	S11		S19	VOL +	S27		S35		S43	ANT/AUX	S51	S59	DISPLAY			S125	SELECT
K14	S4	4	S12	ENTER	S20	VOL -	S28		S36		S44		S52	S60					
K15	S5	5	S13		S21	MUTING	S29		S37		S45		S53	S61					
K16	S6	6	S14		S22	POWER	S30		S38	TV/VIDEO	S46	R G B	S50	S62					
K17	S7	7	S15		S23	RESET	S31		S39		S47		S55	S63					
K18	S8	8	S16		S24	MTS	S32		S40		S48		S56	S64					

Note:

- All Capacitors are in μF unless otherwise noted, pF: μF 50WV or less are not indicated except for electrolytics.
- All resistors are in ohms, 1/6W unless otherwise noted.
- $\text{k}\Omega = 1000\Omega$, $\text{M}\Omega = 1000\text{k}\Omega$
- All voltages are in V.
- Voltages are dc with respect to ground unless otherwise noted.
- Reading are taken with $\square 10\text{M}\Omega$ digital multimeter.
- Voltages and waveform are for when 1 button is pressed.
- Voltages in () are taken with button not pressed.
- Voltage variations may be noted due to normal production tolerances.
- — : B + bus.

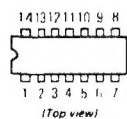
3. PRINTED WIRING BOARD

— Conductor Side —

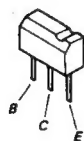


4. SEMICONDUCTORS

CX23040



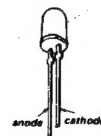
2SC1652



MC911



SE303AY



SLR-932A

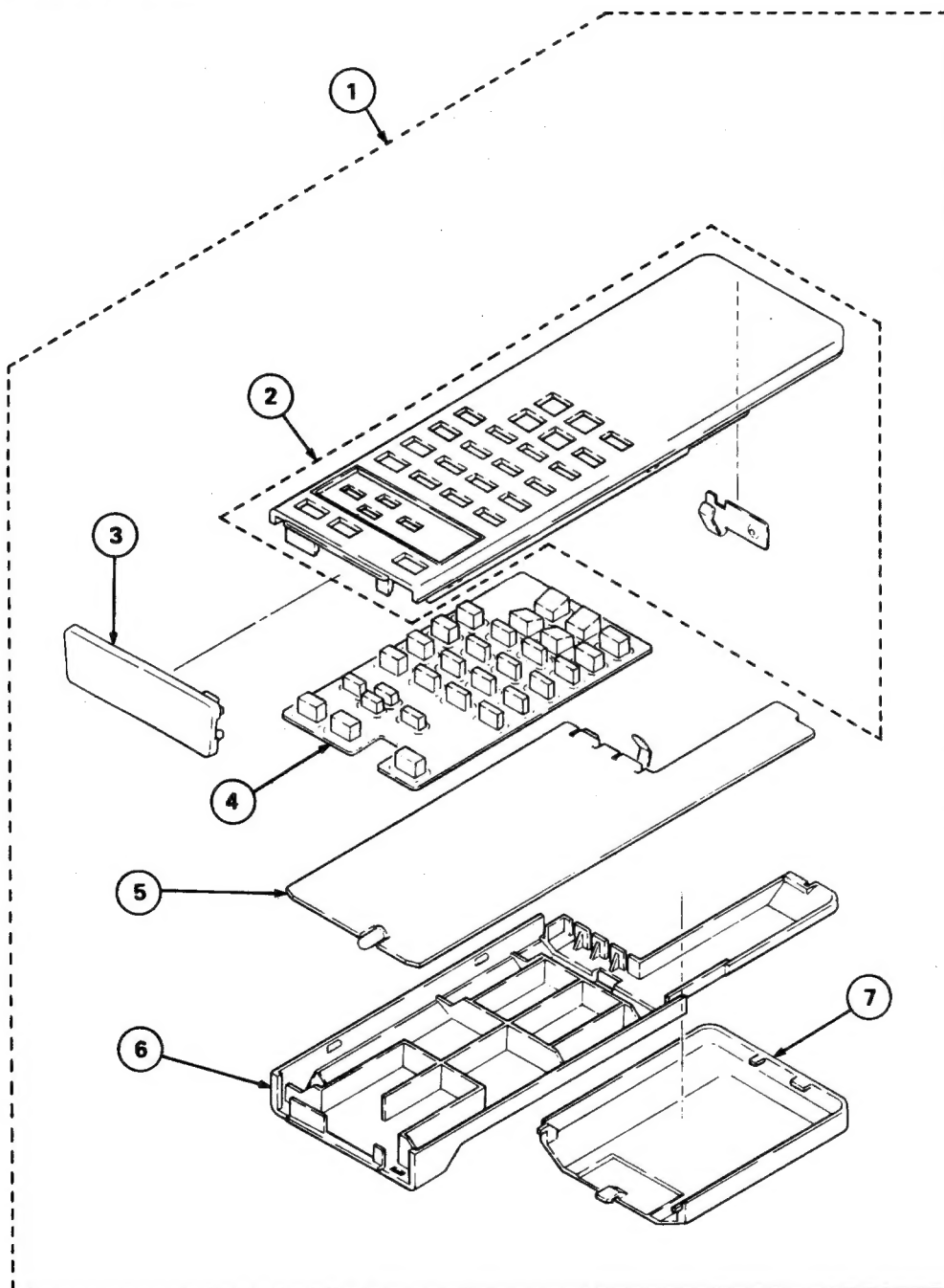


5. EXPLODED VIEW

NOTE:

- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remark column.

- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.



No.	Part No.	Description	Remark	No.	Part No.	Description	Remark
1	A-1470-694-A	COMMANDER ASSY (RM-730)	2-7	5	*1-613-643-21	RC BOARD	
2	X-4375-402-1	CASE ASSY, UPPER		6	4-373-824-01	CASE, LOWER	
3	4-373-819-01	PLATE, FROSTED		7	4-373-821-01	COVER, BATTERY	
4	4-375-448-01	SHEET, RUBBER					

6. ELECTRICAL PARTS LIST

NOTE:

- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

When indicating parts by reference number, please include the board name.

CAPACITORS

- MF : μ F, PF : $\mu\mu$ F

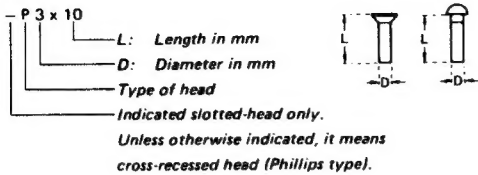
RESISTORS

- All resistors are in ohms
- F : nonflammable

Ref.No.	Part No.	Description	Remark
	*1-613-643-21	RC BOARD *****	
	4-350-924-00	TERMINAL (B), BATTERY	
	4-372-835-01	TERMINAL (A), BATTERY	
<u>CAPACITOR</u>			
C1	1-102-110-00	CERAMIC 220PF	10% 50V
C2	1-102-110-00	CERAMIC 220PF	10% 50V
<u>DIODE</u>			
D1	8-719-107-82	DIODE SE303AY	
D2	8-719-000-04	DIODE MC911	
D3	8-719-000-04	DIODE MC911	
<u>IC</u>			
IC1	8-759-909-49	IC CX23040	
<u>TRANSISTOR</u>			
Q1	8-729-965-22	TRANSISTOR 2SC1652	
<u>RESISTOR</u>			
R1	1-247-809-00	CARBON 120 5%	1/6W
R2	1-247-767-00	CARBON 2.2 5%	1/6W
R3	1-247-895-00	CARBON 470K 5%	1/6W
<u>CRYSTAL</u>			
X1	1-527-476-41	OSCILLATOR, CERAMIC	













HARDWARE NOMENCLATURE














Screw:



Nut, Washer, Retaining ring:



Reference Designation	Shape	Description	Remarks
SCREWS			
P		pan-head screw	binding-head (B) screw for replacement
PWH		pan-head screw with washer face	binding-head (B) screw and flat washer for replacement
PS PSP		pan-head screw with spring washer	binding-head (B) screw and spring washer for replacement
PSW PSPW		pan-head screw with spring and flat washers	binding-head (B) screw and spring and flat washers for replacement
R		round-head screw	binding-head (B) screw for replacement
K		flat-countersunk-head screw	
RK		oval-countersunk-head screw	
B		binding-head screw	
T		truss-head screw	binding-head (B) screw for replacement
F		flat-fillister-head screw	
RF		fillister-head screw	
BV		brazier-head screw	

Reference Designation	Shape	Description	Remarks
SELF-TAPPING SCREWS			
TA		self-tapping screw	ex: TA, P 3 x 10
PTP		pan-head self-tapping screw	binding-head self-tapping (TA, B) screw for replacement
PTPWH		pan-head self-tapping screw with washer face	binding-head self-tapping (TA, B) screw and flat washer for replacement
PTTWH		pan-head thread-rolling screw with washer face	binding-head (B) screw and flat washer for replacement
SET SCREWS			
SC		set screw	
SC		hexagon-socket set screw	ex: SC 2.6 x 4, hexagon socket
NUT			
N		nut	
WASHERS			
W		flat washer	
SW		spring washer	
LW		internal-tooth lock washer	ex: LW3, internal
LW		external-tooth lock washer	ex: LW3, external
RETAINING RINGS			
E		retaining ring	
G		grip-type retaining ring	